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PREFACE

INDIA 1975 is the twenty-second issue of the Reference Annual compiled by the Research and Reference Division of the Ministry of Information and Broadcasting. This authentic book of reference carries information on the diverse aspects of our national life collected from official and other authoritative sources. For further detailed information on specific subjects, it carries a bibliography.

This edition of the Annual includes information that was generally available up to April 1974 and in some cases later. The chapter 'Important Events' covers the period from 1 July 1973 to 31 December 1974. The chapter 'Government', for the first time, brings out the essential features of the federal and parliamentary scheme of the Indian Constitution. The structure of the chapters 'Cultural Activities' and 'Scientific Research' has also been changed.

A review of India's nuclear policy has been attempted in this volume in view of the global reaction to the country's underground nuclear experiment in May 1974.

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KEY TO NUMERATION

1 lakh = One hundred thousand
10 lakh = 1 million
1 crore = 10 million

INDIA'S NUCLEAR POLICY

On 18 May 1974, India carried out an underground nuclear experiment, which set off world-wide reaction ranging from sharply hostile comments and forebodings in Pakistan and some parts of the Western World to an understanding and even appreciative response in others, especially in the countries of the Third World.

Announcing the successful experiment, the Atomic Energy Commission declared that it was part of the programme to keep India abreast of developments in underground explosion technology, particularly with reference to its use in the field of mining and earth-moving operations. The Government of India also reaffirmed that India has no intention of producing nuclear weapons, and is strongly opposed to military uses of nuclear explosions.

In an interview with *Newsweek,* the Prime Minister, Smt Indira Gandhi, restated India's position: "There is a difference between a nuclear country and a nuclear weapons country; we are not a nuclear weapons country; we don't have any bombs. We don't intend to use this knowledge or this power for any other than peaceful purposes. Our neighbours need have no fear. Quite honestly, we view the explosion as an extension of our work of research for keeping abreast of developments in science and technology. No new budgetary provision was made for it. There was no foreign exchange expenditure. And there was no dependence on any other country."

Potential Economic Benefit

The experiment of 18 May 1974 is in line with India's nuclear policy and with the internationally accepted stand on underground nuclear explosions. Such explosions have been recognised by scientists all over the world, especially in advanced countries, as being of great potential economic benefit. The International Atomic Energy Agency organised Panel Meetings in 1970, 1971 and 1972 on the peaceful uses of nuclear explosions in which India participated as a Panel Member. In the foreword to the *Peaceful Nuclear Explosions Phenomenology and Status Report, 1970,* an indication is given of the applications of explosion technology. To quote from the report:

> "Fully contained nuclear explosions (those not breaking through to the ground surface) could be used for many projects. On an industrial level, pilot-scale experiments have already been made for gas and oil stimulation with encouraging results. In addition, the use of cavities created by such explosions appeared to have an economically attractive future for projects such as underground gas and oil storage, and the storage of radioactive wastes from nuclear power stations and chemical plants, for *in situ* retorting of oil from shale oil deposits, and for *in situ* leaching of low-grade ores broken up by the explosion. The latter application is of particular interest to one Member State, India, which could by this means use her very large low-grade non-ferrous metal ore deposits, thus making her more independent of imports of these metals, and furthering the national economy."

Guarding Against Radiation

India had made no secret of her intention to develop this technology. In November 1972, Smt Indira Gandhi said in the Lok Sabha:

> "The Atomic Energy Commission is studying conditions under which peaceful nuclear explosions carried out underground could be of economic benefit to India without causing environmental hazards.

> All precautions are invariably taken against radiation hazards in every nuclear activity, and the record of nuclear technology in this field is amongst the best of all industries."

Again, in November 1973, she stated in the Rajya Sabha:

> "The Department of Atomic Energy is constantly reviewing the progress in the technology of underground nuclear explosions, both from theoretical and experimental angles. The economic value of such underground explosions is being studied with respect to available information in various parts of the country. Its possible effects on the environmental and ecological conditions are also being studied. It is only after satisfactory answers to all these problems are available that the question of actual underground tests for peaceful purposes can be considered."

Immediate Possibilities

Although considerable development has to precede effective exploitation of this technology, some applications are clearly in view even now, for instance, for recovering copper ore through *in situ* leaching in the Singhbhum thrust belt in Bihar, the Khetri copper belt in Rajasthan and the Agnigundala belt in Andhra Pradesh; for carrying out large scale excavations for building canal links between major river systems; and for building harbours, especially at some sites along the Bay of Bengal and the Arabian Sea.

The potential of atomic energy for economic development generally and specially for India and other developing countries was foreseen by Dr H.J. Bhabha even before Hiroshima and Nagasaki. In March 1944, Dr Bhabha wrote to Sir Dorabji Tata Trust proposing the establishment of an institution for advanced studies in nuclear physics and allied fields as a result of which the Tata Institute of Fundamental Research was founded in Bombay. In that letter he said, "When nuclear energy has been successfully applied for power production in, say a couple of decades from now, India will not have to look abroad for its experts, but will find them ready at hand."

Policy Objectives

In April 1948, speaking on the Atomic Energy Bill in the Constituent (Legislative) Assembly, Jawaharlal Nehru said:

> "Somehow, we cannot help associating atomic energy with war. That is the present context of our lives. Nevertheless, the important thing today is that atomic energy is a vast source of power that is coming to the world and it is something even more important than the coming in of wars and the like.... The point I should like the House to consider is that if we are to remain abreast in the world as a nation which keeps ahead of things, we must develop this atomic energy quite apart from war — indeed, I think we must develop it for the purpose of using it for peaceful purposes...."

Dr Bhabha, who was elected President of the first UN Conference on the Peaceful Uses of Atomic Energy in Geneva in 1955, said in his address, "For the full industrialisation of the underdeveloped countries, for continuation of our civilization and its further development, atomic energy is not merely an aid, it is an absolute necessity."

In July 1957, Jawaharlal Nehru said:

> "We have declared quite clearly that we are not interested in, and we will not make these bombs, even if we have the capacity to do so, and that in no event will we use atomic energy for those most destructive purposes."

Steadfast Pursuit

Shri Lal Bahadur Shastri, who succeeded Nehru, stated at the Second Conference of Non-Aligned Nations in Cairo in October 1964:

> "We in India stand committed to the use of atomic energy only for peaceful purposes and even though, in a purely technical and scientific sense, we have the capability of developing nuclear weapons, our scientists and technicians are under firm orders not to make a single experiment, not to perfect a single device which is not needed for peaceful uses."

Smt Indira Gandhi declared in the Lok Sabha in April 1968:

> "Our programme of atomic energy development for peaceful purposes is related to the real needs of our economy and would be effectively geared to this end."

In the world context, India has consistently advocated a complete ban on development, testing and use of nuclear weapons. India supported the Irish draft resolution in the UN Assembly on the prevention of wider dissemination of nuclear weapons, accepting the restrictions imposed on non-nuclear weapons states manufacturing nuclear weapons themselves or acquiring them from other states. But at the same time, India stated that the UN General Assembly's resolution on the subject should not be construed to mean that the Assembly either endorsed what had been done in the past in the way of the manufacture of nuclear weapons, or sanctioned the continued manufacture and retention of nuclear weapons by the existing nuclear weapons powers. India was among the first to sign and ratify the Partial Nuclear Test Ban Treaty in 1963. This was because it promised to be a genuine step towards general and complete disarmament and did not contain any discriminatory provisions. In 1973, India signed the treaty prohibiting the emplacement of nuclear weapons and other weapons of mass destruction on the ocean floor, sea-bed and subsoil thereof because again it represented a step, though small, towards disarmament, and was also not discriminatory.

Principle of Non-Discrimination

India has not however signed the Nuclear Non-Proliferation Treaty of 1968 because the Treaty is discriminatory; while it allows nuclear weapons powers to continue testing nuclear weapons, it prevents others from even developing underground nuclear explosions technology for peaceful purposes. India has completely avoided tests in the atmosphere and in the sea where contamination of the environment is extensive and dangerous to the populace around, though she could have carried out such tests ten years back.

India's atomic energy programme from its inception has been oriented towards two major objectives: generation of power, and utilization of radio-isotopes in industry, medicine, agriculture, research and other areas, and the aim has been to achieve self-reliance in the skills, materials and technology to sustain our nuclear effort.

Beneficent Approach

During the last 20 years (1954-74), the Atomic Energy Commission has invested around Rs 756 crores in the atomic energy programme. This investment has brought tangible returns to the country in its efforts to augment power production and to bring about improvements in medicine, agriculture, industry and other areas through nuclear energy. India's first atomic power station is operating at Tarapur in Maharashtra. Near Kota in Rajasthan, one unit of the two-unit nuclear station is generating power. The second unit of this station and a two-unit nuclear power station at Kalpakkam in Tamil Nadu are under construction. And at Narora in Uttar Pradesh, preliminary work has commenced on a nuclear power station. At the Bhabha Atomic Research Centre (BARC) at Trombay, over 350 types of radio-isotopes are prepared; some are exported even to developed countries. BARC has developed varied uses for radio-isotopes and a wide range of equipment and facilities needed for their application in different fields. In 1973-74, over 34,000 radio-isotope consignments were despatched from BARC for use in the country and abroad. This included around 23,000 consignments for medical, and 2,200 for industrial applications. In 1973, about 45,000 patients in India had the benefit of Trombay-produced radiopharmaceuticals. In January 1974, a plant for radiation sterilization of medical products was commissioned in Trombay with an initial capacity to sterilize about 3,300 cu.m of medical products per annum. Besides their use for diagnosis and treatment of cancer and other diseases, radio-isotopes have found applications in the country in industry where they are used in radiography cameras for non-destructive testing of materials. Research and development work with radio-isotopes includes work on development of new mutants of foodgrains, on extension of shelf-life of some perishable vegetables and flesh products and disinfestation of foodgrains.

Growing Infrastructure

Today, the nuclear infrastructure under the atomic energy programme consists of the nuclear fuel complex at Hyderabad which processes uranium dioxide and fabricates fuel elements as well as special materials needed for the electronics industry; the Electronics Corporation of India Ltd. at Hyderabad which manufactures a wide range of nuclear and non-nuclear electronic equipment including advanced computers, medical electronic equipment and TV sets; the Uranium Corporation of India Ltd. at Jaduguda in Bihar, which mines and processes uranium ore; and the Indian Rare Earths Ltd., which extracts thorium and rare earth minerals from the beach sands of the southern coast. The Candu type reactors at the stations in Kota, Kalpakkam and the one planned at Narora use heavy water as moderator and coolant. To meet this requirement, four heavy water plants are being built in the country at Kota, Baroda, Tuticorin and Talcher.

As thorium can be used to fuel breeder reactors, it plays an important part in India's future nuclear power strategy. Research and development work in this area is already going on at the Reactor Research Centre at Kalpakkam where a Fast Breeder Test Reactor is being built in collaboration with France.

Today, India is not only generating power from nuclear energy but is also building atomic power plants on her own. She is not only preparing a wide range of radio-isotopes and labelled compounds and using them extensively, but is also manufacturing the equipment and the facilities needed for such applications, and even exporting them.

As against the investment of Rs 756 crores in twenty years and the extensive research and development facilities as well as the industrial infrastructure built up to harness atomic energy for the country's economic development, the expenditure on the underground nuclear experiment was only Rs 32 lakhs.

I THE LAND AND THE PEOPLE

India is the second most populous and the seventh largest country in the world. Its population in mid-1974 was estimated at 58.15 crores. It has an area of 32,80,483[1] sq. km. Among its states, Uttar Pradesh has the largest population—9.28 crores—and Madhya Pradesh the largest area—4,42,841 sq. km.

Lying entirely in the northern hemisphere, the Mainland extends between latitudes 8° 4′ and 37° 6′ north and longitudes 68° 7′ and 97° 25′ east and measures about 3,214 km from north to south between the extreme latitudes and about 2,933 km from east to west between the extreme longitudes. It has a land frontier of 15,200 km and a coast line of 6,083 km.

THE PHYSICAL BACKGROUND

The Himalayas and other lofty mountains—Muztagh Ata, Aghil and Kunlun mountains to the north of Kashmir and Zaskar mountains to the east of Himachal Pradesh and north of Uttar Pradesh—form India's northern boundary, except in the Nepal region. She is adjoined in the north by China and Nepal. A series of mountain ranges in the east separate India from Burma. Also in the east, lies Bangladesh bounded by the Indian states of West Bengal, Assam, Meghalaya and Tripura. In the north-west, Afghanistan and Pakistan border on India. South of the Tropic of Cancer, the country tapers off into the Indian Ocean between the Arabian Sea on the west and the Bay of Bengal on the east. The Gulf of Manaar and the Palk Strait separate India from Sri Lanka. The Andaman and Nicobar Islands in the Bay of Bengal and Lakshadweep in the Arabian Sea are parts of the territory of India.

Physical Features

The Mainland comprises three well-defined regions, namely, the great mountain zone, the Indo-Gangetic Plains and the Southern Peninsula.

The Himalayas comprise three almost parallel ranges interspersed with large plateaus and valleys some of which, like the Kashmir and Kulu Valleys, are fertile, extensive and of great scenic beauty. Some of the highest peaks in the world are found in these ranges. The high altitudes limit travel only to a few passes, notably the Jelep La and Natu La on the main Indo-Tibet trade route through the Chumbi Valley north-east of Darjeeling and Shipki La in Sutlej Valley north-east of Kalpa (Kinnaur). The mountain wall extends over a distance of about 2,400 km with a varying depth of 240 to 320 km. In the east, between India and Burma and India and Bangladesh, the hill ranges are much lower. The Garo, Khasi, Jaintia and Naga hills running almost east-west join the chain of the Lushai and Arakan hills running north-south.

The Indo-Gangetic Plains, about 2,400 km long and 240 to 320 km broad, are formed by the basins of three distinct river systems, the Indus, the Ganga and the Brahmaputra. They are one of the world's greatest stretches of flat alluvium and also one of the most densely populated areas on earth. There is hardly any variation in relief.

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[1] Provisional, as on 1 July 1971.

Between the Yamuna river at Delhi and the Bay of Bengal, nearly 1,600 km away, there is a drop of only 200 metres in elevation.

The Peninsular plateau is marked off from the Indo-Gangetic Plains by a mass of mountain and hill ranges varying from 460 to 1,220 metres in height. Prominent among these are the Aravalli, Vindhya, Satpura, Maikala and Ajanta. The Peninsula is flanked on one side by the Eastern Ghats, where the average elevation is about 610 metres, and on the other by the Western Ghats, where it is generally from 915 to 1,220 metres, rising in places to over 2,440 metres. Between the Western Ghats and the Arabian Sea lies a narrow coastal strip, while between the Eastern Ghats and the Bay of Bengal there is a broader coastal area. The southern point of the plateau is formed by the Nilgiri Hills where the Eastern and Western Ghats meet. The Cardamom Hills lying beyond may be regarded as a continuation of the Western Ghats.

Geological Structure

The geological regions broadly follow the physical features and may be grouped into three well-defined regions: the Himalayas and their associated group of mountains, the Indo-Gangetic Plains and the ancient block of the Peninsula.

The Himalayan mountain belt to the north and the Naga-Lushai mountains in the east are regions of mountain building movement. Much of the area, now presenting some of the most magnificent mountain scenery in the world, was under marine conditions over a period of about 60 crore years. In a series of mountain building movements commencing about seven crore years ago, the sediments and the basements of rocks in various configurations rose to great heights. The elements worked on these to produce the relief seen today. The low hill ranges in the sub-Himalayan region were formed by buckling of the material derived by erosion from the rising mountains.

The Indo-Gangetic Plains are a great alluvial tract that separate the Himalayas from the Peninsula to the south. The deposits of the tract belong to the latest chapter of the earth's history and conceal beneath them the southern fringes of the Himalayan formations and the northern fringes of the Peninsular formations. The thickness of the sedimentary cover in this tract exceeds 6,000 metres at places.

The Peninsula is a region of relative stability and rare seismic disturbances. Highly metamorphosed rocks of the earliest periods occur over more than half of its area, the rest being covered by the coal bearing Gondwana formations, other later sediments and lava flows belonging to the Deccan Trap formation.

River Systems

The rivers in India may be classified as: (i) Himalayan rivers, (ii) Deccan rivers, (iii) coastal rivers, and (iv) rivers of the inland drainage basin.

The Himalayan rivers are generally snow-fed and have, therefore, continuous flow throughout the year. During the monsoon months, the Himalayas receive very heavy rainfall and the rivers discharge the maximum amount of water causing frequent floods. The Deccan rivers are generally rain-fed and, therefore, fluctuate in volume. A large number of streams are non-perennial. The coastal streams, specially of the west coast, are short in length and have limited catchment areas. Most of them are non-perennial. The streams of the inland drainage basin of western Rajasthan are few and far between. Most of them are of an ephemeral character. They drain towards the individual basins or salt lakes like the Sambhar or are lost in the sands, having no outlet to the sea. The Luni is the only river of this category that drains into the Rann of Kutch.

The Ganga basin is the largest in India receiving waters from an area which comprises about one-quarter of the total area of the country. Its boundaries are well defined by the Himalayas in the north and the Vindhya mountains in the south. The Ganga has two main headwaters in the Himalayas; the Bhagirathi and the Alaknanda, the former rising from the Gangotri glacier at Gaumukh and the latter from a glacial snout of the Alakapuri glacier. The Ganga is joined by a number of Himalayan rivers including the Yamuna, Ghaghra, Gandak and Kosi. The westernmost river of the Ganga system is the Yamuna, which rises in the Yamnotri glacier and joins the Ganga at Allahabad. Among the rivers flowing north from central India into the Yamuna or the Ganga, are the Chambal, Betwa and Son.

The second largest river basin in India is that of the Godavari. It covers an area which comprises about 10 per cent of the total area of India. The Krishna basin is the second largest in Peninsular India. The Mahanadi flows through the third largest basin in the peninsula. The basins of the Narmada in the uplands of the Deccan and of the Cauvery in the far south are of about the same size, though of different character and shapes.

Two other river systems, which are small but agriculturally important, are those of the Tapi in the north and the Penner in the south.

Climate

The climate of India may be broadly described as tropical monsoon type. There are four seasons in India: (i) winter season (December-February); (ii) hot weather season, summer, (March-May); (iii) rainy season, south west monsoon period, (June-September); and (iv) post-monsoon period, known as north-east monsoon period in the south peninsula, (October-November).

In India, rainfall is erratic and ill-distributed. It varies from place to place and year to year. However, there are four broad climatic regions based on rainfall. Practically the whole of Assam and its neighbourhood, the Western Ghats and the adjoining coastal strip and parts of the Himalayas are areas of very heavy rainfall with more than 2,000 mm of annual rainfall. Some places in the Khasi and Jaintia hills of Meghalaya receive the heaviest rainfall in the world. Cherrapunji gets 10,795 mm of annual rainfall, the highest in the country. In contrast, Rajasthan, Kutch and the high Ladakh plateau of Kashmir extending westward to Gilgit are regions of low precipitation. They get less than 130 mm of rainfall in a year. Between these areas at the extreme ends of the rainfall range, are two areas of moderately high and low rainfall ranging from 1,000 to 2,000 mm and 500 to 1,000 mm. The former consists of a broad belt in the eastern part of the peninsula merging northward with the north Indian plains. The latter runs from the Punjab plains across the Vindhya mountains into the western part of the Deccan, extending further east in Karnataka and Andhra Pradesh.

While the rainy season in most parts of the country is from June to September, in Tamil Nadu it is during October-November.

Fauna

Possessing a tremendous diversity of climate and physical conditions, India has a great variety of fauna. There are no less than 500 species of mammals and 2,000 species of birds in the country. There also exist more than 30,000 different species of insects, apart from a great variety of fishes and reptiles.

The mammals include elephant, associated in India from time immemorial with mythology and the splendour of her regal pageantry, the gaur or Indian bison (the wild buffalo) and the great Indian rhinoceros, now confined to Assam and West Bengal. There are also several deer species like the rare Kashmir stag, swamp deer, the beautiful spotted deer, the unique musk deer, the brow-antlered deer (Thamin) now found in Manipur only, the tiny mouse deer, the Nilgai, the Chousingha (the four-horned antelope), the only four-horned creature in the world, and the Indian antelope or black buck.

Among the animals of prey are the Indian lion, the only lion to be found in the world outside Africa. The tiger, which is the national animal, numbers less than 2,000. The alarming decline in its number in recent years has led to the launching of 'Project Tiger', a scheme financed by the Government of India to safeguard the tiger, its prey and its habitat, in nine selected areas. Among other cats are the leopard, the clouded leopard, the snow-leopard and various species of smaller cats.

Several species of monkeys and langurs are common. The only ape found in India, the hoolock, is confined to the rain forests of the eastern region. The lion tailed macaque with a halo hair around the face is found in the south.

Bird life in India is very rich and colourful. The peacock is the national bird. Several other birds like the pheasants, geese, ducks, mynahs, parakeets, pigeons, cranes, hornbills and sun birds inhabit the forests and wet lands.

The rivers and lakes harbour crocodiles and gharials, the latter being the only representative of a crocodilian order in the world.

The great Himalayan range has a very interesting fauna and include wild sheep and goats, the markhor, the ibex, the serow and the takin. The lesser panda and the snow-leopard are also to be found in the upper reaches of the mountain.

The growth of population and dwindling reserves of forests have affected the fauna in India, as elsewhere. The Government of India set up the Indian Board for Wild Life in 1952 to preserve this national asset. Similar boards have been formed in the states. The Wild Life (Protection) Act, 1972 is being made applicable throughout the country. A Wild Life Week is observed throughout the country in the first week of October every year.

There are at present seven national parks, 130 wild life sanctuaries and 24 zoological gardens in the country. State governments are given financial aid for improvement and development of national parks and sanctuaries.

Flora

With its wide range of climatic conditions—from the torrid to the arctic—India has a rich and varied vegetation, which few other countries of comparable size possess. India can be divided into eight distinct floristic regions, namely, Western Himalayas, Eastern Himalayas, Assam, Indus Plain, Ganga Plain, Deccan, Malabar and Andaman.

The Western Himalayan region extends from Kashmir to Kumaon. The temperate zone of the region is rich in forests of chirpine, other conifers and broad-leaved temperate trees. Higher up, forests of deodar, blue pine, spruce and silver fir occur. The alpine zone extends from the upper limit of the temperate zone to about 4,750 metres or even higher. The characteristic trees of this zone are the high level silver fir, silver-birch and junipers.

The Eastern Himalayan region extends from Sikkim eastwards and embraces Darjeeling, Kurseong and the adjacent tract. The temperate zone of the region has forests of oaks, laurels, maples, rhododendrons, alder and birch; many conifers, junipers and dwarf willows also occur.

The Assam region comprises the Brahmaputra and Surma Valleys and the intervening hill ranges. The vegetation is luxuriant with evergreen forests, occasional thick clumps of bamboos and tall grasses.

The Indus Plain region comprises the plains of Punjab, western Rajasthan and northern Gujarat. This region is dry and hot and supports scanty natural vegetation.

The Ganga Plain region covers the area from Aravalli ranges to Bengal and Orissa. A greater part of the area is alluvial plain and is under cultivation for wheat, sugarcane and rice. Only small areas support forests of widely differing types.

The Deccan region comprises the entire tableland of the Indian peninsula, and supports vegetation of various kinds from scrub jungles to mixed deciduous forests.

The Malabar region covers the excessively humid belt of mountain country running parallel to the west coast of the peninsula. This region, besides being rich in forest vegetation, produces important commercial crops such as coconut, betelnut, pepper, coffee and tea. Also, rubber, cashewnut and eucalyptus have been successfully introduced in some parts of this region.

The Andaman region comprises the Andaman and Nicobar group of islands. It abounds in evergreen, semi-evergreen, mangrove, beach and diluvial forests.

The Himalayas, Assam and the Western Ghats are rich in endemic flora, *i.e.,* in plants found only in these regions of India and nowhere else in the world.

Because of the destruction of forests for agricultural, industrial and urban development, several Indian plants are facing extinction. Samples of some of these rare plants are being preserved in botanical gardens and national parks. Collections of dried samples of these plants are preserved in the Central National Herbarium, Calcutta, the regional herbaria of the Botanical Survey of India and in other research and teaching institutions of the country.

THE DEMOGRAPHIC BACKGROUND

Census

The first all-India census, though not synchronously taken, was completed in 1872. Since 1881, census in India has been taken regularly every ten years. The latest in 1971 marked the completion of 100 years of decennial census-taking in the country. The enumeration was conducted between 10 March and 3 April 1971 (with reference date as the sunrise of 1 April) except in certain areas where it was taken between September 1970 and February 1971. The highlights of the 1971 census are given at the end of this chapter.

Total Population

According to the 1971 census, the total population of India was 54,79,49,809. As compared to the 1961 census, it showed an increase of 24.8 per cent. The main cause of this increase in population is the fall in death rate brought about by better health conditions, effective control of epidemics, efficient handling of famine conditions and general improvement and economic development. The population has gone up despite a small fall in the birth rate.

Table 1.1 shows population growth since 1901.

TABLE 1.1

GROWTH OF POPULATION (1901-1971)

State/Union Territory	1901	1911	1921	1931	1941	1951	1961	1971
INDIA	**23,83,37,313**	**25,20,05,470**	**25,12,39,492**	**27,88,67,430**	**31,85,39,060**	**36,09,50,365**	**43,90,72,582**	**54,79,49,809**
States								
Andhra Pradesh	1,90,65,921	2,14,47,412	2,14,20,448	2,42,03,573	2,72,89,340	3,11,15,259	3,59,83,447	4,35,02,708
Assam	32,89,680	38,48,617	46,36,980	55,60,371	66,94,790	80,28,856	1,08,37,329	1,46,25,152
Bihar	2,73,11,865	2,83,14,281	2,81,26,675	3,13,47,108	3,51,70,840	3,87,82,271	4,64,47,457	5,63,53,369
Gujarat	90,94,748	98,03,587	1,01,74,989	1,14,89,828	1,37,01,551	1,62,62,657	2,06,33,350	2,66,97,475
Haryana	46,23,079	41,74,690	42,55,905	45,59,931	52,72,845	56,73,614	75,90,543	1,00,36,808
Himachal Pradesh	19,20,294	18,96,944	19,28,206	20,29,113	22,63,245	23,85,981	28,12,463	34,60,434
Jammu & Kashmir[1]	21,39,362	22,92,535	24,24,359	26,70,208	29,46,728	32,53,852	35,60,976	46,16,632
Karnataka	1,30,54,754	1,35,25,251	1,33,77,599	1,46,32,992	1,62,55,368	1,94,01,956	2,35,86,772	2,92,99,014
Kerala	63,96,262	71,47,673	78,02,127	95,07,050	1,10,31,541	1,35,49,118	1,69,03,715	2,13,47,375
Madhya Pradesh	1,68,60,768	1,94,40,965	1,91,71,750	2,13,55,657	2,39,90,608	2,60,71,637	3,23,72,408	4,16,54,119
Maharashtra	1,93,91,643	2,14,74,523	2,08,49,666	2,39,59,300	2,68,32,758	3,20,02,564	3,95,53,718	5,04,12,235
Manipur	2,84,465	3,46,222	3,84,016	4,45,606	5,12,069	5,77,635	7,80,037	10,72,753
Meghalaya	3,40,524	3,94,005	4,22,403	4,80,837	5,55,820	6,05,674	7,69,380	10,11,699
Nagaland	1,01,550	1,49,038	1,58,801	1,78,844	1,89,641	2,12,975	3,69,200	5,16,449
Orissa	1,03,02,917	1,13,78,875	1,11,58,586	1,24,91,056	1,37,67,988	1,46,45,946	1,75,48,846	2,19,44,615
Punjab	75,44,790	67,31,510	71,52,811	80,12,325	96,00,236	91,60,500	1,11,35,069	1,35,51,060
Rajasthan	1,02,94,090	1,09,83,509	1,02,92,648	1,17,47,974	1,38,63,859	1,59,70,774	2,01,55,602	2,57,65,806
Tamil Nadu	1,92,52,630	2,09,02,616	2,16,28,518	2,34,72,099	2,62,67,507	3,01,19,047	3,36,86,953	4,11,99,168
Tripura	1,73,325	2,29,613	3,04,437	3,82,450	5,13,010	6,39,029	11,42,005	15,56,342
Uttar Pradesh	4,86,27,655	4,81,54,908	4,66,72,398	4,97,79,538	5,65,35,154	6,32,19,655	7,37,54,554	8,83,41,144
West Bengal	1,69,40,088	1,79,98,769	1,74,74,348	1,88,97,036	2,32,29,552	2,62,99,980	3,49,26,279	4,43,12,011
Union Territories[2]								
Andaman & Nicobar Islands	24,649	26,459	27,086	29,463	33,768	30,971	63,548	1,15,133
Arunachal Pradesh	—	—	—	—	—	—	3,36,558	4,67,511
Chandigarh	21,967	18,437	18,133	19,783	22,574	24,261	1,19,881	2,57,251
Dadra & Nagar Haveli	24,280	29,020	31,048	38,260	40,441	41,532	57,963	74,170
Delhi	4,05,819	4,13,851	4,88,452	6,36,246	9,17,939	17,44,072	26,58,612	40,65,698
Goa, Daman & Diu	5,07,518	5,19,222	5,00,904	5,41,710	5,83,736	5,96,059	6,26,667	8,57,771
Lakshadweep	13,882	14,555	13,637	16,040	18,355	21,035	24,108	31,810
Mizoram	82,434	91,204	98,406	1,24,404	1,52,786	1,96,202	2,66,063	3,32,390
Pondicherry	2,46,354	2,57,179	2,44,156	2,58,628	2,85,011	3,17,253	3,69,079	4,71,707

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[1] The population of Jammu and Kashmir for 1951 has been taken to be the arithmetic mean of 1941 and 1961 population. The population of the state for 1941 and earlier censuses has been adjusted to exclude that of areas currently under the illegal occupation of Pakistan and China. Later figures exclude the population of such areas.

[2] Population figures for Goa, Daman and Diu and Dadra and Nagar Haveli for 1901, 1911, 1941 and 1951 have been assumed to be the same as in 1900, 1910, 1940 and 1950 respectively. Similarly, figures for Pondicherry for 1951 have been assumed to be the same as in 1948. The 1961 figures for Goa, Daman and Diu relate to the census taken by the Portuguese authorities with reference date as 15 December 1960; figures for Dadra and Nagar Haveli relate to 1962 census with reference date as 1 March 1962.

Density

The average density of population per sq. km in 1971 was 178. It varied considerably from state to state, being as high as 549 in Kerala and as low as 31 in Nagaland and 6 in Arunachal Pradesh. The area and density of population in various states and union territories are shown in Table 1.2.

TABLE 1.2
AREA AND DENSITY OF POPULATION

State/Union Territory	Area (sq. km)[1]	Population 1971	Density of population per sq. km
INDIA	**32,80,483[2]**	**54,79,49,809**	**178[3]**
States			
Andhra Pradesh	2,76,814	4,35,02,708	157
Assam	78,523	1,46,25,152	186
Bihar	1,73,876	5,63.53,369	324
Gujarat	1,95,984	2,66,97,475	136
Haryana	44,222	1,00,36,808	227
Himachal Pradesh	55,673	34,60,434	62
Jammu & Kashmir	2,22,236[2]	46,16,632	N.A.
Karnataka	1,91,773	2,92,99,014	153
Kerala	38,864	2,13,47,375	549
Madhya Pradesh	4,42,841	4,16,54,119	94
Maharashtra	3,07,762	5,04,12,235	164
Manipur	22,356	10,72,753	48
Meghalaya	22,489	10,11,699	45
Nagaland	16,527	5,16,449	31
Orissa	1,55,782	2,19,44,615	141
Punjab	50,362	1,35,51,060	269
Rajasthan	3,42,214	2,57,65,806	75
Tamil Nadu	1,30,069	4,11,99,168	317
Tripura	10,477	15,56,342	149
Uttar Pradesh	2,94,413	8,83,41,144	300
West Bengal	87,853	4,43,12,011	504
Union Territories			
Andaman & Nicobar Islands	8,293[4]	1,15,133	14
Arunachal Pradesh	83,578	4,67,511	6
Chandigarh	114	2,57,251	2,257
Dadra & Nagar Haveli	491	74,170	151
Delhi	1,485	40,65,698	2,738
Goa, Daman & Diu	3,813	8,57,771	225
Lakshadweep	32	31,810	994
Mizoram	21,087	3,32,390	16
Pondicherry	480	4,71,707	983

[1] Provisional, as on 1 July 1971. N.A.—Not available.

[2] Includes area under illegal occupation of Pakistan and China.

[3] Density worked out after excluding population and area figures of Jammu and Kashmir.

[4] As on 1 January 1966.

The density of population and the percentage increase of population between 1921 and 1971 are as follows :

TABLE 1.3
DENSITY AND INCREASE OF POPULATION

Year	Density per sq. km	Decade	Percentage increase in population
1921	81		
1931	90	1921-31	11.0
1941	103	1931-41	14.2
1951	117	1941-51	13.3
1961	142	1951-61	21.6
1971	178	1961-71	24.8

Note: Density worked out after excluding the population and area figures of Jammu and Kashmir.

Birth and Death Rates and Life Expectancy

Estimates of birth and death rates and life expectancy at decennial censuses since 1921 are given in the Table below. There has been a steady increase in life expectancy during the successive decades.

TABLE 1.4
BIRTH AND DEATH RATES AND LIFE EXPECTANCY

Decade	Per thousand		Expectation of life at birth	
	Birth rate (estimated)	Death rate (estimated)	Males	Females
1921-30	46.4	36.3	26.91	26.56
1931-40[1]	45.2	31.2	32.09	31.37
1941-50	39.9	27.4	32.45	31.66
1951-60	41.7	22.8	41.90	40.60
1961-70	41.1[2]	18.9[2]	47.10[2]	45.60[2]

[1] Unofficial estimates.

[2] Provisional, based on one per cent sample data.

Table 1.5 shows life expectancy at various stages for the three decades 1941-50, 1951-60 and 1961-70.

TABLE 1.5
EXPECTATION OF LIFE AT VARIOUS STAGES

	Expectation of life					
	1941-50		1951-60[1]		1961-70[2]	
	Males	Females	Males	Females	Males	Females
0 ..	32.5	31.7	41.9	40.6	47.1	45.6
10 ..	40.0	39.5	45.2	43.8	49.0	48.1
20 ..	33.0	32.9	37.0	35.8	40.2	39.7
30 ..	26.6	26.2	29.0	27.9	31.9	31.7
40 ..	20.5	21.1	22.1	22.4	24.7	24.7
50 ..	14.9	16.2	16.5	17.5	18.3	18.9
60 ..	10.1	11.3	11.8	13.0	13.0	13.4

[1] Census of India 1961.

[2] Provisional, based on one per cent sample data.

Age Structure

The following Table shows the percentage of different age groups to the total population according to the 1971 census.

TABLE 1.6
AGE STRUCTURE (1971)

Age group	0 to 14	15 to 19	20 to 24	25 to 29	30 to 39	40 to 49	50 to 59	60+
Percentage of the total population	42.0	8.7	7.9	7.4	12.6	9.3	6.1	6.0

Sex Ratio

For every thousand males, India has 930 females, according to the 1971 census, the number declining from 972 in 1901 and 950 in 1931. Only Kerala among the states (1,016) and Dadra and Nagar Haveli among the union territories (1,007) has more women than men. The lowest female ratio among the states is in Punjab and Haryana where it varies between 865 and 867. Among the union territories, the lowest female ratio is in Andaman and Nicobar Islands where it is 644.

Table 1.7 gives the changes in sex ratio state-wise between 1901 and 1971.

TABLE 1.7

CHANGES IN SEX RATIO BETWEEN 1901 AND 1971 (STATE-WISE)

State/Union Territory	Females per 1,000 males							
	1901	1911	1921	1931	1941	1951	1961	1971
INDIA	**972**[1]	**964**	**955**	**950**[1]	**945**[1]	**946**	**941**	**930**
States								
Andhra Pradesh	985	992	993	987	980	986	981	977
Assam	919	915	896	874	875	868	869	896
Bihar	1,054	1,044	1,016	994	996	990	994	954
Gujarat	954	946	944	945	941	952	940	934
Haryana	867	835	844	844	869	871	868	867
Himachal Pradesh	884	889	890	897	890	912	938	958
Jammu & Kashmir	882	876	870	865	869	873[2]	878	878
Karnataka	983	981	969	965	960	966	959	957
Kerala	1,004	1,008	1,011	1,022	1,027	1,028	1,022	1,016
Madhya Pradesh	990	986	974	973	970	967	953	941
Maharashtra	978	966	950	947	949	941	936	930
Manipur	1,037	1,029	1,041	1,065	1,055	1,036	1,015	980
Meghalaya	1,036	1,013	1,000	971	966	949	937	942
Nagaland	973	993	992	997	1,021	999	933	871
Orissa	1,037	1,056	1,086	1,067	1,053	1,022	1,001	988
Punjab	832	780	799	815	836	844	854	865
Rajasthan	905	908	896	907	906	921	908	911
Tamil Nadu	1,044	1,042	1,029	1,027	1,012	1,007	992	978
Tripura	874	885	885	885	886	904	932	943
Uttar Pradesh	937	915	909	904	907	910	909	879
West Bengal	945	925	905	890	852	865	878	891
Union Territories								
Andaman & Nicobar Islands	318	352	303	495	574	625	617	644
Arunachal Pradesh[3]	—	—	—	—	—	—	894	861
Chandigarh	771	720	743	751	763	781	652	749
Dadra & Nagar Haveli	960	967	940	911	925	946	963	1,007
Delhi	862	793	733	722	715	768	785	801
Goa, Daman & Diu	1,085	1,103	1,122	1,088	1,083	1,128	1,071	989
Lakshadweep	1,063	987	1,027	994	1,018	1,043	1,020	978
Mizoram	1,113	1,120	1,109	1,102	1,069	1,041	1,009	946
Pondicherry	N.A.	1,058	1,053	N.A.	N.A.	1,030[4]	1,013	989

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[1] Excludes Pondicherry.

[2] For calculating sex ratio, the arithmetic mean of 1941-61 sex-wise population has been taken.

[3] Censused for the first time in 1961.

[4] Based on the 1948 population assumed as 1951 population.

N.A.—Not available.

TABLE 1.8
AGE AND MARITAL STATUS (1971)[1]

(*in hundreds*)

Age group	Total Population			Marital Status									
	Persons	Males	Females	Never married		Married		Widowed		Divorced or separated		Unspecified status	
				Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
All ages	54,79,498	28,39,366	26,40,132	15,67,268	11,92,695	11,79,059	12,05,244	83,937	2,32,233	5,370	8,738	3,732	1,222
0—9	16,11,248	8,26,488	7,84,760	8,26,488	7,84,760	—	—	—	—	—	—	—	—
10—14	6,79,245	3,60,332	3,18,913	3,43,930	2,81,051	15,668	37,138	120	201	29	112	585	411
15—19	4,77,631	2,53,885	2,23,746	2,08,590	96,023	44,227	1,25,915	391	755	157	852	520	201
20—24	4,32,424	2,15,511	2,16,913	1,08,384	19,654	1,04,790	1,93,845	1,350	1,951	526	1,371	461	92
25—29	4,07,282	2,01,154	2,06,128	37,972	4,020	1,59,550	1,96,962	2,473	3,814	862	1,297	297	35
30—34	3,62,260	1,82,156	1,80,104	13,212	1,537	1,64,009	1,70,227	3,815	7,116	828	1,207	292	17
35—39	3,29,421	1,72,078	1,57,343	6,945	856	1,59,411	1,44,353	4,765	11,000	730	1,108	227	26
40—44	2,84,176	1,51,157	1,33,019	5,325	773	1,38,129	1,12,459	6,901	18,864	587	881	215	42
45—49	2,28,358	1,24,247	1,04,111	3,577	450	1,12,677	81,712	7,355	21,259	465	666	173	24
50—54	2,05,555	1,11,337	94,218	3,120	412	96,812	58,863	10,795	34,418	428	474	182	51
55—59	1,25,735	67,402	58,333	1,752	213	57,329	33,883	8,003	23,950	229	259	89	28
60—64	1,43,099	74,481	68,618	1,954	239	59,075	25,192	13,066	42,888	244	254	142	45
65—69	68,098	35,567	32,531	915	139	27,267	11,284	7,203	20,968	105	110	77	30
70÷	1,15,170	58,789	56,381	1,593	296	39,280	11,026	17,622	44,863	172	144	122	52
Age not stated	9,796	4,782	5,014	3,511	2,272	835	2,385	78	186	8	3	350	168

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[1] Estimated from 1 per cent sample data which has been adjusted pro-rata sex-wise so as to conform to actual enumerated population.

TABLE 1.9

STATE-WISE POPULATION OF MAJOR RELIGIOUS COMMUNITIES (1971)

State/Union Territory	Hindus	Muslims	Christians	Sikhs	Buddhists	Jains	Other religions and persuasions	Religion not stated
INDIA	**45,32,92,086**	**6,14,17,934**	**1,42,23,382**	**1,03,78,797**	**38,12,325**	**26,04,646**	**21,84,556**	**36,083**
States								
Andhra Pradesh	3,81,19,279	35,20,166	18,23,436	12,591	10,035	16,108	995	98
Assam	1,06,04,618	35,92,124	3,81,010	11,920	22,565	12,914	1	—
Bihar	4,70,31,801	75,94,173	6,58,717	61,520	4,806	25,185	9,76,997	170
Gujarat	2,38,35,471	22,49,055	1,09,341	18,233	5,469	4,51,578	18,781	9,547
Haryana	89,56,310	4,05,723	9,802	6,31,048	845	31,173	5	1,902
Himachal Pradesh	33,24,627	50,327	3,556	44,914	35,937	626	319	128
Jammu & Kashmir	14,04,292	30,40,129	7,182	1,05,873	57,956	1,150	8	42
Karnataka	2,53,32,388	31,13,298	6,13,026	6,830	14,139	2,18,862	380	91
Kerala	1,26,83,277	41,62,718	44,94,089	1,284	605	3,336	562	1,504
Madhya Pradesh	3,90,24,162	18,15,685	2,86,072	98,973	81,823	3,45,211	836	1,357
Maharashtra	4,13,07,287	42,33,023	7,17,174	1,01,762	32,64,223	7,03,664	80,023	5,079
Manipur	6,32,597	70,969	2,79,243	1,028	495	1,408	83,167	3,846
Meghalaya	1,87,140	26,347	4,75,267	1,262	1,878	268	3,18,168	1,369
Nagaland	59,031	2,966	3,44,798	687	179	627	1,08,159	2
Orissa	2,11,21,056	3,26,507	3,78,888	10,204	8,462	6,521	91,859	1,118
Punjab	50,87,235	1,14,447	1,62,202	81,59,972	1,374	21,383	355	4,092
Rajasthan	2,30,93,895	17,78,275	30,202	3,41,182	3,642	5,13,548	4,339	723
Tamil Nadu	3,66,74,150	21,03,899	23,67,749	4,355	1,148	41,097	6,080	690
Tripura	13,93,689	1,03,962	15,713	318	42,285	375	—	—
Uttar Pradesh	7,39,97,597	1,36,76,533	1,31,810	3,69,672	39,639	1,24,728	423	742
West Bengal	3,46,11,864	90,64,338	2,51,752	35,084	1,21,504	32,203	1,94,126	1,140
Union Territories								
Andaman & Nicobar Islands	70,134	11,655	30,342	865	103	14	1,264	756
Arunachal Pradesh	1,02,832	842	3,684	1,255	61,400	39	2,96,674	785
Chandigarh	1,84,395	3,720	2,504	65,472	92	1,016	47	5
Dadra & Nagar Haveli	71,075	740	1,918	3	73	303	21	37
Delhi	34,07,835	2,63,019	43,720	2,91,123	8,720	50,513	527	241
Goa, Daman & Diu	5,50,482	32,250	2,72,509	885	260	556	269	560
Lakshadweep	1,545	30,019	239	4	—	—	3	—
Mizoram	21,229	1,882	2,86,141	427	22,647	3	61	—
Pondicherry	4,00,793	29,143	41,296	51	21	237	107	59

THE SOCIAL PATTERN[1]

The break-up of the population according to age and marital status is shown in Table 1.8.

Religions

Table 1.9 shows the population of the major religious communities in various states and union territories.

The following Table shows the population of major religious communities along with their percentage to total population and the percentage increase during the decennium 1961-71.

TABLE 1.10
MAJOR RELIGIOUS COMMUNITIES AND THEIR PERCENTAGE

Religious community	1961[1]		1971		
	Population	Percentage to total population	Population	Percentage to total population	Percentage increase 1961-71[3]
Hindus	36,63,93,102	83.51	45,32,92,086	82.72	23.69
Muslims	4,69,38,584	10.70	6,14,17,934	11.21	30.85
Christians	1,07,23,560	2.44	1,42,23,382	2.60	32.60
Sikhs	78,45,098	1.79	1,03,78,797	1.89	32.28
Buddhists	32,00,333	0.73	38,12,325	0.70	17.20
Jains	20,27,248	0.46	26,04,646	0.47	28.48
Others[2]	16,08,099	0.37	22,20,639	0.41	19.59
TOTAL	43,90,72,582	100.00	54,79,49,809	100.00	24.80

[1] 1961 figures exclude the figures for Arunachal Pradesh as the all-India census schedule was not canvassed throughout that Pradesh then.

[2] Includes figures for 'religion not stated'.

[3] Percentage increase (1961-71) of each religion has been calculated on comparative area figures of 1961-71.

Languages

The 1961 census enumerated a total of 1,652 mother-tongues. (For details, see 'India 1973'). Data relating to the languages/dialects spoken in India on the basis of the 1971 census is being compiled.

Rural and Urban Population

Of the 54.79 crore people, who constituted the 1971 population of India, 43.89 crores or about 80 per cent live in villages and 10.91 crores or 20 per cent in cities and towns. There has been, between 1921 and 1971, a steady shift towards urbanisation as shown below :

TABLE 1.11
RURAL AND URBAN POPULATION

Percentage of total population	1921	1931	1941	1951	1961	1971
Rural	88.8	88.0	86.1	82.7	82.0	80.1
Urban	11.2	12.0	13.9	17.3	18.0	19.9

Towns and Villages

According to the 1971 census, there are 5,75,721 villages and 2,641 towns/town agglomerations. Of the villages, 3,18,611 have a population of less than 500 and 6,333 a population of 5,000 and over.

Of the towns and town agglomerations, 147 have a population of over one lakh each (see map). Of these, nine have a population of more than 10 lakhs. These are: Calcutta U.A. (70,31,382), Greater Bombay (59,70,575), Delhi U.A. (36,47,023), Madras (31,69,930), Hyderabad U.A. (17,96,339), Ahmadabad U.A. (17,41,522), Bangalore U.A. (16,53,779), Kanpur U.A. (12,75,242) and Poona U.A. (11,35,034). (see Tables 1.12 and 1.13).

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[1] Figures given in Tables of this volume exclude Sikkim. This explains variations from those given in the earlier volumes.

TABLE 1.12

STATE-WISE DISTRIBUTION OF VILLAGES ACCORDING TO POPULATION (1971)

State/Union Territory	10,000 and over	5,000 to 9,999	2,000 to 4,999	1,000 to 1,999	500 to 999	Less than 500	Total
INDIA	**1,358**	**4,975**	**35,992**	**81,909**	**1,32,873**	**3,18,611**	**5,75,721**[1]
States							
Andhra Pradesh	80	724	4,833	6,411	5,438	9,735	27,221
Assam[2]	1	29	788	3,061	5,986	12,359	22,224
Bihar	86	676	4,333	9,310	15,228	37,933	67,566
Gujarat	17	248	1,965	4,398	5,241	6,406	18,275
Haryana	8	148	975	1,673	1,909	2,018	6,731
Himachal Pradesh	—	2	50	260	861	15,743	16,916
Jammu & Kashmir	—	9	226	764	1,556	3,948	6,503
Karnataka	9	252	2,014	4,556	7,082	12,913	26,826
Kerala	808	316	122	16	2	4	1,268
Madhya Pradesh	6	87	1,292	5,952	16,516	47,030	70,883
Maharashtra	75	492	3,102	7,439	10,529	14,141	35,778
Manipur[3]	—	8	79	172	239	1,448	1,949
Meghalaya	—	—	7	54	237	4,285	4,583
Nagaland	—	1	17	114	169	659	960
Orissa	2	22	830	3,546	8,821	33,771	46,992
Punjab	2	79	940	2,392	3,577	5,198	12,188
Rajasthan	10	165	1,524	4,008	7,817	19,781	33,305
Tamil Nadu	140	752	3,902	4,547	3,425	2,969	15,735
Tripura	—	3	65	222	473	3,964	4,727
Uttar Pradesh	58	515	5,400	16,081	28,295	62,212	1,12,561
West Bengal	52	412	3,342	6,622	9,085	18,561	38,074
Union Territories							
Andaman & Nicobar Islands	—	—	1	19	32	338	390
Arunachal Pradesh	—	—	11	37	107	2,818	2,973
Chandigarh	—	1	—	7	10	8	26
Dadra & Nagar Haveli	—	—	5	26	18	23	72
Delhi	2	6	60	79	53	43	243
Goa, Daman & Diu	2	23	77	85	82	140	409
Lakshadweep	—	2	6	1	—	1	10
Pondicherry	—	3	26	57	85	162	333

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[1] Includes three villages of Manipur for which details are not available.

[2] Includes Mizo district, now constituted as Union Territory of Mizoram.

[3] Separate population of three villages not available.

TABLE 1.13

DISTRIBUTION OF TOWNS/TOWN AGGLOMERATIONS[1] ACCORDING TO POPULATION (1971)

State/Union Territory	1,00,000 and over	50,000 to 99,999	20,000 to 49,999	10,000 to 19,999	5,000 to 9,999	Less than 5,000	Total
INDIA	**147**	**185**	**582**	**874**	**680**	**173**	**2,641**
States							
Andhra Pradesh	13	17	59	76	38	4	207
Assam	1	5	9	24	22	8	69
Bihar	11	9	42	57	35	7	161
Gujarat	8	17	37	66	67	5	200
Haryana	2	9	14	15	20	5	65
Himachal Pradesh	—	1	1	5	7	21	35
Jammu & Kashmir ..	2	—	3	3	15	20	43
Karnataka	12	9	38	99	46	26	230
Kerala	5	7	40	25	9	2	88
Madhya Pradesh	11	11	41	72	91	7	233
Maharashtra	18	16	61	90	58	14	257
Manipur	1	—	—	—	4	3	8
Meghalaya	1	—	—	1	1	—	3
Nagaland	—	—	1	2	—	—	3
Orissa	5	1	19	21	30	2	78
Punjab	4	8	22	32	30	10	106
Rajasthan	7	7	31	64	38	4	151
Tamil Nadu	16	27	57	86	44	11	241
Tripura	1	—	—	4	1	..	6
Uttar Pradesh	22	20	67	91	80	13	293
West Bengal	4	20	34	40	36	3	137
Union Territories							
Andaman & Nicobar Islands	—	—	1	—	—	—	1
Arunachal Pradesh ..	—	—	—	—	1	3	4
Chandigarh	1	—	—	—	—	—	1
Dadra & Nagar Haveli ..	—	—	—	—	—	—	—
Delhi	1	—	—	—	—	—	1
Goa, Daman & Diu ..	—	1	3	1	4	4	13
Lakshadweep	—	—	—	—	—	—	—
Mizoram	—	—	1	—	1	—	2
Pondicherry	1	—	1	—	2	1	5

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[1] In certain clusters the urban area is not limited only to the notified boundary of any one or two places but embraces satellite towns and cities and industrial towns or settlements close to this urban area, being outgrowths of such towns/cities. Such well-formed clusters are treated urban agglomerations, the determinant being a continuous urban spread including the outgrowth(s).

1971 CENSUS HIGHLIGHTS

Population of India	Persons	54.8 crores
	Males	28.4 crores
	Females	26.4 crores
Decennial growth rate 1961-71	24.80 per cent	
Density of population	178 per sq. km[1]	
Sex ratio	930 females per 1,000 males	
Literacy rate (including age group 0–4)	Persons	29.45 per cent
	Males	39.45 per cent
	Females	18.70 per cent
Proportion of urban population to total population	19.91 per cent	
Percentage of workers to total population (main activity only)	Persons	32.92
	Males	52.50
	Females	11.85
Categories of workers	*Percentage to total workers*	
I. Cultivators	Total	43.34
	Males	38.20
	Females	5.14
II. Agricultural labourers	Total	26.33
	Males	17.57
	Females	8.76
III. Livestock, forestry, fishing, hunting, plantations, orchards and allied activities	Total	2.38
	Males	1.95
	Females	0.43
IV. Mining and quarrying	Total	0.51
	Males	0.44
	Females	0.07
V. Manufacturing, processing, servicing and repairs		
(a) Household industry	Total	3.52
	Males	2.78
	Females	0.74
(b) Other than household industry	Total	5.94
	Males	5.46
	Females	0.48
VI. Construction	Total	1.23
	Males	1.12
	Females	0.11
VII. Trade and commerce	Total	5.57
	Males	5.26
	Females	0.31
VIII. Transport, storage and communications	Total	2.44
	Males	2.36
	Females	0.08
IX. Other workers	Total	8.74
	Males	7.50
	Females	1.24

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[1] Density worked out after excluding the figures of Jammu and Kashmir as the figures for the area beyond the cease-fire line are not available.

2 NATIONAL SYMBOLS

NATIONAL FLAG

The National Flag is a horizontal tricolour of deep saffron (*Kesari*) at the top, white in the middle and dark green at the bottom in equal proportion. The ratio of the width of the Flag to its length is two to three. In the centre of the white band is a wheel, in navy blue, which represents the *Charkha*. Its design is that of the wheel (*Chakra*) which appears on the abacus of the Sarnath Lion Capital of Asoka. Its diameter approximates to the width of the white band and it has 24 spokes.

The design of the National Flag was adopted by the Constituent Assembly of India on 22 July 1947. Its use and display are regulated by a code.

STATE EMBLEM

The State Emblem of India is an adaptation from the Sarnath Lion Capital of Asoka as preserved in the Sarnath museum. In the original there are four lions, standing back to back, mounted on an abacus with a frieze carrying sculptures in high relief of an elephant, a galloping horse, a bull and a lion separated by intervening wheels (*Chakras*) over a bell-shaped lotus. Carved out of a single block of polished sandstone, the Capital is crowned by the Wheel of the Law (*Dharma Chakra*).

In the State Emblem adopted by the Government of India on 26 January 1950, only three lions are visible, the fourth being hidden from view. The wheel appears in relief in the centre of the abacus with a bull on the right and a horse on the left and the outlines of the other wheels on the extreme right and left. The bell-shaped lotus has been omitted. The words, *Satyameva jayate*, from the *Mundaka Upanishad* meaning 'Truth alone triumphs', are inscribed below the abacus in Devanagari script.

NATIONAL ANTHEM

Rabindranath Tagore's song *Jana-gana-mana* was adopted by the Constituent Assembly as the National Anthem of India on 24 January 1950. It was first sung on 27 December 1911 at the Calcutta session of the Indian National Congress. The complete song consists of five stanzas. The first stanza constitutes the full version of the National Anthem. It reads:

Jana-gana-mana-adhinayaka jaya he
Bharata-bhagya-vidhata.
Punjaba-Sindhu-Gujarata-Maratha-
Dravida-Utkala-Banga
Vindhya-Himachala-Yamuna-Ganga
Uchchhala-jaladhi-taranga
Tava subha name jage,
Tava subha asisa mage,
Gahe tava jaya-gatha.
Jana-gana-mangala-dayaka jaya he
Bharata-bhagya-vidhata
Jaya he, jaya he, jaya he,
Jaya jaya jaya, jaya he.

Playing time of the full version of the National Anthem is

National Flag

सत्यमेव जयते

National Emblem

approximately 52 seconds. A short version consisting of the first and last lines of this stanza (playing time approximately 20 seconds) is also played on certain occasions. The following is Tagore's English rendering of the stanza:

Thou art the ruler of the minds of all people,
Dispenser of India's destiny.
Thy name rouses the hearts of the Punjab, Sind, Gujarat and
Maratha,
Of the Dravid and Orissa and Bengal.
It echoes in the hills of the Vindhyas and Himalayas,
mingles in the music of the Jamuna and Ganges
and is chanted by the waves of the Indian Sea.
They pray for thy blessings and sing thy praise.
The saving of all people waits in thy hand,
Thou dispenser of India's destiny.
Victory, victory, victory to thee.

NATIONAL SONG

Bankim Chandra Chatterjee's *Vande Mataram*, which was a source of inspiration to the people in their struggle for freedom, has an equal status with *Jana-gana-mana*. The first political occasion on which it was sung was the 1896 session of the Indian National Congress. The following is the text of its first stanza:

Vande Mataram!
Sujalam, suphalam, malayaja-shitalam,
Shasyashyamalam, Mataram!
Shubhrajyotsna-pulakitayaminim,
Phullakusumita-drumadala-shobhinim,
Suhasinim sumadhura-bhashinim,
Sukhadam varadam, Mataram!

The English translation of the stanza by Sri Aurobindo is:

I bow to thee, Mother,
richly-watered, richly-fruited,
cool with the winds of the south,
dark with the crops of the harvests,
the Mother!
Her nights rejoicing in the glory of the moonlight,
her lands clothed beautifully with her trees in flowering bloom,
sweet of laughter, sweet of speech,
the Mother, giver of boons, giver of bliss!

NATIONAL CALENDAR

A uniform National Calendar based on the Saka era with Chaitra as its first month and a normal year of 365 days was adopted from 22 March 1957 along with the Gregorian calendar for the following official purposes: (i) The Gazette of India, (ii) news broadcasts by All India Radio, (iii) calendars issued by the Government of India, and (iv) government communications addressed to members of the public.

The dates of the National Calendar have a permanent correspondence with the dates of the Gregorian calendar; 1 Chaitra falling on 22 March normally and on 21 March in a leap year.

3 GOVERNMENT

India, a union of states, is a Sovereign Democratic Republic with a parliamentary system of government. The Republic is governed in terms of the Constitution, which was adopted by the Constituent Assembly on 26 November 1949 and came into force on 26 January 1950.

The Constitution is federal in structure with unitary features and the President of India is the constitutional head of the executive of the union. Though the Constitution says that the executive power of the union is vested in the President, it also specifies that he shall exercise this power, 'in accordance with the Constitution.' Article 74(1) of the Constitution enjoins that 'there shall be a Council of Ministers headed by the Prime Minister to aid and advise the President in the exercise of his functions.' The real executive power thus vests in the Council of Ministers headed by the Prime Minister, collectively responsible to the Lok Sabha (House of the People). Similarly, in the states, the Governor occupies the position of the head of the executive of the state, but it is virtually the Council of Ministers with the Chief Minister at the head, collectively responsible to the Legislative Assembly of the state, which carries on the executive government.

Under the Constitution, the areas of jurisdiction of the union and states are demarcated. The constituent and residual powers of legislation are vested in Parliament of the union.

Besides, a system of local self-government is in vogue. The Directive Principle of State Policy embodied in article 40 of the Constitution says that the State shall take steps to organise village Panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government. A Panchayati Raj system has grown in almost every state whereby every village as well as groups of villages have self-governing institutions with varying powers. In the big cities there are elected municipal corporations and in medium and small towns there are elected municipal councils or committees.

The superintendence, direction and control of the preparation of the electoral rolls for, and the conduct of, all elections to Parliament and to the state legislatures and of elections to the offices of the President and the Vice-President are vested in the Election Commission which consists of the Chief Election Commissioner and such number of other Election Commissioners as the President may fix and appoint. The Chief Election Commissioner's independence is sought to be protected by making a special constitutional provision for his removal.

The parliamentary system of government in India is based on adult suffrage, whereby all citizens of India who are not less than 21 years of age and are not disqualified on certain grounds like non-residence, unsoundness of mind or corrupt practices have the right to be registered as a voter in any election to the Lok Sabha and to the legislative assemblies of the states. In 1971, the number of voters on the electoral rolls was more than 27.14 crores.

The Constitution also has provisions for the independence of the judiciary, of the Comptroller and Auditor-General of India, and the Public Service Commissions.

The judiciary has now been separated from the executive at all levels throughout the country.

THE UNION AND ITS TERRITORY

India comprises 21 states and nine union territories. The states are: Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. The union territories are: Andaman and Nicobar Islands, Arunachal Pradesh, Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Daman and Diu, Lakshadweep, Mizoram and Pondicherry.

CITIZENSHIP

The Constitution provides for a single and uniform citizenship for the whole of India. Every person who was at the commencement of the Constitution domiciled in India and (a) was born in India, or (b) either of whose parents was born in India, or (c) who had been ordinarily resident in the territory of India for not less than five years immediately preceding that date, became a citizen of India. Special provision was made for migrants from Pakistan and for persons of Indian origin resident abroad. The Citizenship Act, 1955, which supplements the provisions of the Constitution, provides for the acquisition of citizenship by birth, descent, registration and naturalisation. The Act also provides for loss of citizenship by renunciation, termination and deprivation.

FUNDAMENTAL RIGHTS

The Constitution offers all citizens, individually and collectively, some basic freedoms. These are guaranteed in the Constitution in the form of seven broad categories of Fundamental Rights which are justiciable. These are: (i) the right to equality including, equality before law, prohibition of discrimination on grounds of religion, race, caste, sex, or place of birth, and equality of opportunity in matters of employment; (ii) the rights to freedom of speech and expression; assembly; association or union; movement; residence; acquisition, holding and disposal of property; and the right to practise any profession or occupation (some of these rights are subject to the security of the State, friendly relations with foreign countries, public order, decency or morality); (iii) the right against exploitation, prohibiting all forms of forced labour, child labour and traffic in human beings; (iv) the right to freedom of conscience and free profession, practice and propagation of religion; (v) the right of minorities to conserve their culture, language and script and to establish and administer educational institutions of their choice; (vi) the right to property, subject to the right of the State to compulsory acquisition for public purpose and by authority of a law which also fixes the amount to be paid or lays down the principles to determine the amount; and (vii) the right to constitutional remedies for the enforcement of Fundamental Rights.

DIRECTIVE PRINCIPLES OF STATE POLICY

The Constitution lays down certain Directive Principles of State Policy which, though not justiciable, are 'fundamental in the governance of the country,' and it is 'the duty of the State to apply these principles in making laws.' These lay down that the State shall strive 'to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of national life.' The State shall direct its policy in such a manner as to secure the right of all men and women to an adequate means of livelihood, equal pay for equal work, and, within the limits of its economic capacity and development, to make effective provision for securing the right to work, education and public assistance in the event of unemployment old age, sickness and disablement or other cases of underserved want. The State shall also endeavour to secure to workers a living wage, humane conditions of work, a decent standard of life and full enjoyment of leisure and social and cultural opportunities.

In the economic sphere, the State is to direct its policy in such a manner as to secure the distribution of ownership and control of the material resources of the community to subserve the common good and to ensure that the operation of the economic system does not result in the concentration of wealth and means of production to common detriment.

Some of the other important Directives relate to the provision of free and compulsory education for all children up to the age of fourteen; promotion of educational and economic interests of scheduled castes, scheduled tribes and other weaker sections; organisation of village Panchayats; separation of judiciary from the executive; promulgation of a uniform civil code for the whole country; protection of national monuments; and the promotion of international peace and security, just and honourable relations between nations, respect for international law and treaty obligations and settlement of international disputes by arbitration.

THE UNION

EXECUTIVE

The union executive consists of the President, the Vice-President and the Council of Ministers under the Prime Minister.

President

The President is elected by an electoral college consisting of the elected members of both Houses of Parliament and of the legislative assemblies of the states in accordance with the system of proportional representation by means of the single transferable vote. To secure uniformity among the states *inter se* as well as parity between the states as a whole and the union, suitable weightage is given to each vote. The President must be a citizen of India, not less than 35 years of age, and eligible for election as a member of the Lok Sabha. His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with the procedure prescribed in article 61. He may, by writing under his hand addressed to the Vice-President, resign his office.

The executive power of the union is vested in the President and is exercised by him either directly or through officers of the government in accordance with the Constitution. The supreme command of the Defence Forces also vests in him. The President summons, prorogues, addresses, sends messages to Parliament and dissolves the Lok Sabha; promulgates ordinances at any time, except when both Houses of Parliament are in session; makes recommendations for introducing financial and money bills and gives assent to bills; grants pardons, reprieves, respites or remissions of punishment or suspends, remits or commutes sentences in certain cases. When there is a failure of constitutional machinery in a state, he can assume to himself all or any of the functions of the government of the state. The President can proclaim emergency in the country if he is satisfied that a grave emergency exists whereby the security of India or any part of the territory thereof is threatened.

Vice-President

The Vice-President is elected by an electoral college consisting of the members of both Houses of Parliament in accordance with the system of proportional representation by means of the single transferable vote. He must be a citizen of India, not less than 35 years of age, and eligible for election as a member of the Rajya Sabha (Council of States). His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with the procedure prescribed in article 67(b).

The Vice-President is the *ex-officio* Chairman of the Rajya Sabha and acts as the President when the latter is unable to discharge his functions due to absence, illness or any other cause, or till the election of a new President (to be held within six months) when a vacancy is caused by the death, resignation or removal, or otherwise of the President. While so acting he ceases to perform the functions of the Chairman of the Rajya Sabha.

Council of Ministers

There is a Council of Ministers headed by the Prime Minister to aid and advise the President in the exercise of his functions. The Prime Minister is appointed by the President who also appoints other ministers on the advice of the Prime Minister. The Council is collectively responsible to the Lok Sabha. It is the duty of the Prime Minister to communicate to the President all decisions of the Council of Ministers relating to the administration of the affairs of the union and proposals for legislation and information relating to them and, if the President so requires, submit for the consideration of the Council any matter on which a decision has been taken by a minister but which has not been considered by the Council.

The Council of Ministers comprises ministers, who are members of the Cabinet, ministers of state and deputy ministers. For the list of personnel of the central government, see Appendices.

Administrative Set-up

Rules of Business have been framed under the Constitution for the allocation of the business of government among ministers and its more convenient transaction.

The allocation is made by the President on the advice of the Prime Minister by specifying the items of business allotted to each ministry and by assigning a ministry or a part of ministry or more than one ministry to the charge of a minister. A cabinet minister is often assisted by a minister or ministers of state or deputy ministers or both.

Generally, each ministry has an officer designated as Secretary to the Government of India to advise the minister on policy and administration.

Cabinet Secretariat

The Department of Cabinet Affairs under the Cabinet Secretariat has an important co-ordinating role in the process of decision-making at the highest level and operates under the direction of the Prime Minister. Its functions include submission of cases to the Cabinet and its committees, preparation of the records of decisions taken and follow-up action on their implementation. It also services the committees of Secretaries which meet periodically under the chairmanship of the Cabinet Secretary to consider and advise on problems requiring inter-ministerial consultation and co-ordination. It formulates the Rules of Business and allocates the business of the Government of India to the ministries and departments under the direction of the Prime Minister and with the approval of the President. The Department obtains and circulates to the President, the Vice-President, the Council of Ministers and other important functionaries, periodical summaries and notes on important developments in each ministry.

PUBLIC SERVICES

For recruitment to civil services and posts under the union government, the Constitution provides for an independent body known as the Union Public Service Commission. The chairman and members of the Commission are appointed by the President.

To ensure the independence of the Commission, the Constitution debars its chairman from further employment either under the Government of India or the government of a state. A member of the Commission is, however, eligible for appointment as chairman of that Commission or of a state Public Service Commission, but for no other government employment.

The personnel of the Commission on 1 November 1974 was:

Chairman: A.R. Kidwai
Members: H.N. Ramachandra Rao
R.N. Muttoo
A.K. Dhan
P.L. Bhatnagar
Asoka Sen
Teja Singh Virk
M. Singaravelu

ATTORNEY-GENERAL

The Attorney-General for India is appointed by the President to hold office during his pleasure. He must be a person qualified to be appointed a judge of the Supreme Court. He gives advice to the Government of India upon such legal matters, and performs such other duties of a legal character, as may be referred or assigned to him by the President. In the performance of his duties he has the right to audience in all courts in India as well as the right to take part in the proceedings of Parliament without the right to vote.

COMPTROLLER AND AUDITOR-GENERAL

The Comptroller and Auditor-General of India is appointed by the President. The procedure and the grounds for his removal from office are the same as for a Supreme Court judge. He is not eligible for further office under the union or a state government after he ceases to hold his office.

The Comptroller and Auditor-General prescribes, with the approval of the President, the form in which the accounts of the union and of the states are to be kept. His reports on the accounts of the union and of the states are submitted to the President and the respective Governors and are placed before Parliament and state legislatures.

His duties, powers and conditions of service have been specified by the Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Act, 1971.

OFFICIAL LANGUAGE

Hindi in Devanagari script is the official language of the union and the international form of Indian numerals is used for official purposes. It was, however, provided in the Constitution that English shall continue to be used for all official purposes of the union till 25 January 1965. But later on it was felt that a complete change-over to Hindi was not practicable within the stipulated period. Hence, the Official Languages Act, 1963, as amended, lays down that English may continue to be used, in addition to Hindi, for all official purposes of the union for which it was being used immediately before 26 January 1965 and also for the transaction of business in Parliament. Further, English shall be used for purposes of communication between the union and a state which has not adopted Hindi as its official language. Where Hindi is used for communication between a state which has adopted Hindi as its official language and another state which has not done so, such communication shall be accompanied by a translation in English. Even a state which has not adopted Hindi as its official language may use Hindi for communication with the union or with a state which has adopted Hindi as its official language.

LEGISLATURE

The legislature of the union, which is called Parliament, consists of the President and two Houses known as the Rajya Sabha (Council of States) and the Lok Sabha (House of the People). Each House of Parliament has to meet within six months of its previous sitting. A joint sitting of the two Houses can be held in certain cases.

Rajya Sabha

The Constitution provides that the Rajya Sabha shall consist of not more than 250 members, of whom 12 having special knowledge or practical experience in literature, science, art and social service, shall be nominated by the President and the rest shall be representatives of the states and the union territories. The elections to the Rajya Sabha are indirect; those representing the states are elected by the elected members of the legislative assemblies of the states concerned in accordance with the system of proportional representation by means of the single transferable vote and those representing the union territories are chosen in such manner as Parliament may by law prescribe. The Rajya Sabha is not subject to dissolution, one-third of its members retiring on the expiration of every second year.

The membership of the Rajya Sabha, as constituted at present, is 243. Of these, 231 represent the states and union territories, of whom 230 are indirectly elected and one, representing the union territory of Arunachal Pradesh, is nominated by the President. Twelve members, being specialists in the fields of literature, science, art and social service, are nominated by the President.

Lok Sabha

The Lok Sabha as constituted in March 1971 consisted of 521 members. The membership increased to 524 after the coming into force of the North-Eastern Areas (Reorganisation) Act, 1971. Of these, 506 are directly elected from 21 states and 15 from eight union territories. One member is nominated by the President to represent the union territory of Arunachal Pradesh and two members are nominated by him to represent the Anglo-Indian community.

The number of seats for each state is so allocated that the ratio between the number and the population of the state is, as far as practicable, the same for all the states. Unless dissolved sooner, the term of the Lok Sabha is five years from the date appointed for its first meeting. During an emergency, Parliament by law can prolong its life for a period not exceeding one year at a time and not extending in any case beyond a period of six months after the proclamation of emergency has ceased to operate.

The state-wise allocation of seats in the two Houses and the party position in the Lok Sabha is given in Table 3.1. For names of members of Parliament, see Appendices.

Qualifications for Membership of Parliament

In order to be chosen a member of Parliament, a person must be a citizen of India; must be not less than 30 years of age in the case of the Rajya Sabha and not less than 25 years of age in the case of the Lok Sabha. Additional qualifications may be prescribed by Parliament by law.

Parliamentary Privileges

The Constitution provides for freedom of speech in Parliament. No member of Parliament can be held liable to any proceedings in any court in respect of anything said or any vote given by him in Parlia-

TABLE 3.1

ALLOCATION OF SEATS IN TWO HOUSES OF PARLIAMENT AND PARTY POSITION IN LOK SABHA

As on 18 May 1974

	No. of seats in Rajya Sabha	Lok Sabha								
		No. of seats	Congress	Communist Party of India (Marxist)	Communist Party of India	Dravida Munnetra Kazhagam	Jana Sangh	Other Parties	Un-attached	Total
Andhra Pradesh	18	41	37	1	1	—	—	2[1]	—	41
Assam	7	14	13	1	—	—	—	—	—	14
Bihar	22	53	37	—	5	—	2	7[2]	1	52 (1 vacant)
Gujarat	11	24	12	—	—	—	—	10[3]	2	24
Haryana	5	9	7	—	—	—	1	—	1	9
Himachal Pradesh	3	4	4	—	—	—	—	—	—	4
Jammu & Kashmir	4	6	5	—	—	—	—	—	1	6
Karnataka	12	27	27	—	—	—	—	—	—	27
Kerala	9	19	6	2	3	—	—	7[4]	1	19
Madhya Pradesh	16	37	22	—	—	—	10	5[5]	—	37
Maharashtra	19	45	40	—	1	—	—	2[6]	2	45
Manipur	1	2	2	—	—	—	—	—	—	2
Meghalaya	1	2	—	—	—	—	—	—	2	2
Nagaland	1	1	—	—	—	—	—	1[7]	—	1
Orissa	10	20	14	—	1	—	—	5[8]	—	20
Punjab	7	13	9	—	1	—	—	—	1	11[15] (1 vacant)
Rajasthan	10	23	15	—	—	—	3	4[9]	1	23

Tamil Nadu ..	18	39	9	—	4	19	—	7[10]	—	39
Tripura ..	1	2	—	2	—	—	—	—	—	2
Uttar Pradesh ..	34	85	73	—	5	—	4	—	2	84 (1 vacant)
West Bengal ..	16	40	15	20	3	—	—	2[11]	—	40
Andaman & Nicobar Islands ..	—	1	1	—	—	—	—	—	—	1
Chandigarh ..	—	1	1	—	—	—	—	—	—	1
Dadra & Nagar Haveli ..	—	1	1	—	—	—	—	—	—	1
Delhi ..	3	7	7	—	—	—	—	—	—	7
Goa, Daman & Diu ..	—	2	1	—	—	—	—	1[12]	—	2
Lakshadweep ..	—	—	1	—	—	—	—	—	—	1
Mizoram ..	1	1	1	—	—	—	—	—	—	1
Pondicherry ..	1	1	—	—	—	—	—	1[13]	—	1
Arunachal Pradesh ..	1[16]	1[16]	1	—	—	—	—	—	—	1
Anglo-Indian Community ..	—	2[16]	—	—	—	—	—	2[14]	—	2
Nominated by President under art 80(1) (a) of the Constitution ..	12	—	—	—	—	—	—	—	—	—
TOTAL ..	243	524	361	26	24	19	20	56	14	520[15]+3 vacant

[1] Telengana Praja Samiti—2.

[2] Socialist Party—2, Cong. (O)—3, UIPG—2.

[3] Swatantra—2, Cong. (O)—8.

[4] Muslim League—2, Revolutionary Socialist Party—2, Kerala Congress—3.

[5] Socialist Party—1, UIPG—4.

[6] Socialist Party—1, Forward Bloc—1.

[7] UIPG—1.

[8] Swatantra—3, UIPG—2.

[9] Swatantra—2, UIPG—2.

[10] Muslim League—1, Forward Bloc—1, Cong. (O)—1, ADMK—4.

[11] Revolutionary Socialist Party—1, Socialist Party—1.

[12] UIPG—1.

[13] ADMK—1.

[14] UIPG—2

[15] Excludes the Speaker, who is not a member of any party.

[16] Nominated by the President.

ment or any of its committees. Other powers, privileges and immunities of the members are the same as those enjoyed by the members of the House of Commons of the British Parliament at the commencement of the Indian Constitution, until Parliament defines them by law. The validity of any proceedings in Parliament shall not be called in question on the ground of any irregularity of procedure.

Functions and Powers of Parliament

The main functions of Parliament are to make laws for the country and make finances available to the government for the services of the State. The Council of Ministers is collectively responsible to the Lok Sabha. Parliament is also vested with the powers to impeach the President and to remove judges of the Supreme Court and High Courts, the Chief Election Commissioner and the Comptroller and Auditor-General in accordance with the procedure laid down in the Constitution.

All legislation requires the consent of both Houses of Parliament. In the case of money bills, however, the will of the Lok Sabha prevails, Delegated legislation is also subject to review and control by Parliament. All financial legislation must be recommended by the President, but the Lok Sabha alone has the power to assent or refuse to assent to the demands for grants, authorise appropriations of moneys and approve the proposals for taxation. In times of an emergency, and also in some other contingencies laid down in the Constitution, the legislative authority of Parliament also extends to matters enumerated in the State List. The power to amend the Constitution also rests primarily with Parliament, except in some cases where ratification by the legislatures of not less than one-half of the states is prescribed by the Constitution.

Parliamentary Committees

To assist Parliament in its deliberations, Parliamentary committees are appointed or elected by the respective Houses themselves on a motion made, or nominated by their presiding officers. The committees broadly fall under three groups: those concerned mainly with the organisation and powers of the Houses; those assisting the Houses in their legislative functions; and committees with financial functions. In the first category fall the Committees on Rules, Privileges and Absence of Members and the Business Advisory Committee. The legislative committees include Select Committees of either House and Joint Select Committees of the two Houses, set up *ad hoc* for the consideration of important bills. The three important committees in the third category are the Public Accounts, the Estimates and the Public Undertakings Committees. While Rajya Sabha members are associated with the first and third committees, membership of the second is confined only to the Lok Sabha. Ministers are debarred from being members of these three committees.

The Public Accounts Committee scrutinises the Appropriation Accounts of the Government of India and the report of the Comptroller and Auditor-General thereon. It ensures that public money is spent in accordance with Parliament's decisions and calls attention to cases of waste, extravagance, loss, nugatory expenditure or lack of financial integrity in public services. The Estimates Committee reports on 'what economies, improvements in organisation, efficiency or administrative reform, consistent with the policy underlying the estimates' may be effected. It also examines whether 'the money is well laid out within the limits of the policy implied in the estimates' and suggests the form in which the estimates shall be presented to Parliament.

The Committee on Public Undertakings examines the reports and accounts of certain specified public undertakings and reports of the Auditor-General thereon, if any. It also examines whether the public undertakings are being run efficiently and 'managed in accordance with sound business principles and prudent commercial practices'.

Other important committees of the Lok Sabha are the Committee on Government Assurances, the Committee on Subordinate Legislation and the Committee on Petitions. The first Committee scrutinises the assurances given by ministers on the floor of the House and reports on the extent of their implementation. The second Committee scrutinises whether the powers to make regulations, rules, sub-rules and bye-laws conferred by the Constitution or delegated by Parliament are being properly exercised within such delegation. The third Committee examines petitions or representations received from individuals or associations. Ministers are debarred from being members of these committees.

There are also three standing Joint Committees of the two Houses. They are the Committee on Offices of Profit, the Committee on Salaries and Allowances of Members of Parliament and the Committee on the Welfare of Scheduled Castes and Scheduled Tribes. The third Committee considers the reports of the Commissioner for Scheduled Castes and Scheduled Tribes and reports to both Houses as to the measures to be taken by the union government (including the administration of the union territories) for their welfare.

Consultative Committees

There are Consultative Committees for different ministries and departments which provide a forum for discussion between members of Parliament and the ministries. These Committees function in accordance with the guidelines evolved by the government in consultation with leaders of opposition parties and groups.

JUDICIARY

Supreme Court

The Supreme Court of India consists of a Chief Justice and not more than thirteen other judges appointed by the President. The judges hold office till the age of 65. For appointment as a judge of the Supreme Court, a person must be a citizen of India and must have been for at least five years a judge of a High Court or of two or more such courts in succession; or an advocate of a High Court or of two or more such courts in succession for at least ten years; or he must be, in the opinion of the President, a distinguished jurist. Provision exists for the appointment of a judge of a High Court as an *ad hoc* judge of the Supreme Court and for retired judges of the Supreme Court or High Courts to sit and act as judges of that Court.

The Constitution seeks to ensure the independence of the Supreme Court judges in various ways. A judge of the Supreme Court cannot be removed from office except by an order of the President passed after an address by each House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-thirds of the members present and voting has been presented to the President in the same session for such removal on the ground of proved misbehaviour or incapacity. A person who has been a judge of the Supreme Court is debarred from practising in any court of law or before any other authority in India.

The membership of the Court as on 16 December 1974 was:

Chief Justice:	A.N. Ray	
Judges:	P. Jaganmohan Reddy	P.N. Bhagwati
	H.R. Khanna	V.R. Krishna Iyer

K.K. Mathew
M.H. Beg
Y.V. Chandrachud
A. Alagiriswami
P.K. Goswami
R.S. Sarkaria
A.C. Gupta
N.L. Untwalia

Jurisdiction of Supreme Court

The Supreme Court has original and appellate jurisdiction. Its exclusive original jurisdiction extends to any dispute between the union and one or more states; or between the union and any state or states on one side and one or more other states on the other; or between two or more states, if and insofar as the dispute involves any question (whether of law or of fact) on which the existence or extent of a legal right depends. In addition, article 32 of the Constitution gives an extensive original jurisdiction to the Supreme Court in regard to the enforcement of Fundamental Rights. It is empowered to issue directions or orders or writs, including those in the nature of writs of *habeas corpus, mandamus,* prohibition, *quo warranto* and *certiorari* to enforce them.

The appellate jurisdiction of the Supreme Court can be invoked by a certificate of the High Court concerned or by special leave granted by the Supreme Court, in respect of any judgment, decree or final order of the High Court in cases, both civil and criminal, involving substantial questions of law as to the interpretation of the Constitution. Appeals also lie to the Supreme Court in civil matters if the High Court concerned certifies (a) that the case involves a substantial question of law of general importance, and (b) that in the opinion of the High Court the said question needs to be decided by the Supreme Court. In criminal cases an appeal lies to the Supreme Court if the High Court (a) has on appeal reversed an order of acquittal of an accused person and sentenced him to death or to imprisonment for life or for a period of not less than 10 years, or (b) has withdrawn for trial before itself any case from any court subordinate to its authority and has in such trial convicted the accused person and sentenced him to death or to imprisonment for life or for a period of not less than 10 years, or (c) certifies that the case is a fit one for appeal to the Supreme Court. Parliament is authorised to confer on the Supreme Court any further powers to entertain and hear appeals from any judgment, final order or sentence in a criminal proceeding of a High Court.

The Supreme Court has also a very wide appellate jurisdiction over all courts and tribunals in India inasmuch as it may, in its discretion, grant special leave to appeal from any judgment, decree, determination, sentence or order in any case or matter passed or made by any court or tribunal in the territory of India.

It has a special advisory jurisdiction in matters which may specifically be referred to it by the President under article 143 of the Constitution.

THE STATES

The system of government in the states closely resembles that of the union.

EXECUTIVE

The state executive consists of the Governor and the Council of Ministers with the Chief Minister at its head.

Governor

The Governor of a state is appointed by the President for a term of five years and holds office during his pleasure. Only Indian citizens above 35 years of age are eligible for appointment to this office. The executive power of the state is vested in the Governor and all executive actions of the government of the state are expressed to be taken in his name.

The Governor has to act on the aid and advice of the Council of Ministers, except insofar as he is by or under the Constitution required to exercise his functions or any of them in his discretion. The discretionary powers of the Governors, specifically so stated in the Constitution, are only those relating to certain matters concerning the administration of the tribal areas in Assam and Meghalaya, the Tuensang area of Nagaland, the hill areas of Manipur and the Telengana region of Andhra Pradesh and the maintenance of law and order in Nagaland. However, all Governors while discharging some functions such as the appointment of the Chief Minister of a state or sending a report to the President about the failure of the constitutional machinery in a state, have to exercise their discretion in accordance with the constitutional convention.

Council of Ministers

The Chief Minister is appointed by the Governor, who also appoints other ministers on the advice of the Chief Minister. The Council of Ministers is collectively responsible to the legislative assembly of the state.

Advocate-General

There is an Advocate-General for each state who is appointed by the Governor to hold office during his pleasure. He must be a person qualified to be appointed a judge of a High Court. He gives advice to the state government upon such legal matters, and performs such other duties of a legal character, as may be referred or assigned him by the Governor. The Advocate-General can take part in the proceedings of the state legislature without the right to vote.

Planning

At the state level, an inter-departmental committee of secretaries headed by the Chief Secretary or Secretary in-charge of planning, co-ordinates development programmes. Generally, the functions of co-ordination for planning and implementation of programmes in the districts are performed by an officer commonly known as Development Commissioner. As a rule, a committee of the state cabinet under the Chief Minister provides overall guidance and direction. State planning boards which include non-officials have been set-up in most of the states.

District Administration

District Administration in the country is under a collector who is responsible for the proper collection of revenue, for the maintenance of law and order and for criminal administration in the district. The police force in each district is headed by a superintendent of police.

LEGISLATURE

For every state there is a legislature which consists of the Governor and one House or, as the case may be, two Houses. In Andhra Pradesh, Bihar, Jammu and Kashmir, Karnataka, Maharashtra, Tamil Nadu and Uttar Pradesh, there are two Houses known as the Legislative Council and the Legislative Assembly.[1] In the remaining states there is only one House known as the Legislative Assembly. Parliament can, by law, provide for the abolition of an existing

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[1] Although the Constitution (Seventh Amendment) Act, 1956 provides for the creation of a Legislative Council in Madhya Pradesh, it has not yet been constituted.

TABLE 3.2

ALLOCATION OF SEATS AND STRENGTH OF PARTIES IN STATE/UNION TERRITORY LEGISLATURES

As on 1 April 1974

State/Union Territory	No. of seats in the Legislative Council	Legislative Assembly										
		No. of seats	Congress	Congress (O)	Swatantra	CPI	CPI (M)	Socialist	Jana Sangh	Other Parties[4]	Independents[5]	Seats vacant
Andhra Pradesh	90	287	214	—	—	8	1	—	—	36	19	9
Assam	—	114	95	—	1	3	—	4	—	5	6	—
Bihar	96	318	181	24	1	35	—	—	24	40	12	1
Gujarat[1]	—	182	—	—	—	—	—	—	—	—	—	182
Haryana	—	81	51	5	—	—	—	—	2	6	16	1
Himachal Pradesh	—	68	53	—	—	—	1	—	5	2	6	1
Jammu & Kashmir	36	75[2]	62	—	—	—	—	—	3	5	4	1
Kerala	—	133	35	3	—	16	31	7	—	36	4	1
Karnataka	63	216	165	25	—	3	1	2	—	1	18	1
Madhya Pradesh	—	296	232	—	—	5	—	4	45	—	9	1
Maharashtra	78	270	219	—	—	2	1	—	5	31	10	2
Manipur	—	60	12	—	—	6	—	2	—	38	2	—
Meghalaya	—	60	12	—	—	—	—	—	—	47	1	—
Nagaland	—	60	—	—	—	—	—	—	—	60	—	—
Orissa	—	147	68	—	—	7	3	2	—	57	9	1
Punjab	—	104	67	—	—	10	1	—	1	25	—	—
Rajasthan	—	184	142	—	11	4	—	5	7	—	11	3
Tamil Nadu	63	234	6	13	5	5	—	—	—	202	3	—
Tripura	—	60	41	—	—	1	16	—	—	—	2	—

Uttar Pradesh	108	425	215	10	1	16	2	5	61	109	5	1
West Bengal	—	280	216	2	—	35	13	—	—	8	5	1
Delhi	—	56[3]	43	2	—	3	—	—	5	1	1	1
Goa, Daman & Diu	—	30	1	—	—	—	—	—	—	27	1	1
Mizoram	—	30	27	—	—	—	—	—	—	—	3	—
Pondicherry[1]	—	30	—	—	—	—	—	—	—	—	—	—
TOTAL	534	3,800	2,157	85	19	159	70	31	158	736	147	26

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[1] Gujarat and Pondicherry Legislative Assemblies were dissolved on 15-3-74 and 28-3-74 respectively.

[2] Excluding 25 seats for the territory held by Pakistan.

[3] Metropolitan Council.

[4] Other Parties include:

Andhra Pradesh—Socialist Democratic Front 11, Andhra Pradesh Progressive Democrats 8, Progressive Front 8, Peoples' Democrats 6, Majlis Ittehad-ul-Muslimeen 2, Republican Party of India 1.
Assam—Peoples' Democratic Party 3, RCPI 1, Plain Tribal Conference 1.
Bihar—SSP 17, Socialist Vidhayak Dal 14, Hul Jharkand 2, Progressive Hul Jharkand 1, Jharkand (HN Horo Group) 1, All India Jharkand Party 3, Hindustani Soshit Dal 2.
Haryana—Vishal Haryana Party 3, Progressive Independent Group 3.
Himachal Pradesh—Lok Raj Party 2.
Jammu & Kashmir—Jamaat-Islami 5.
Kerala—Kerala Congress 13, Muslim League 11, RSP 6, PSP 2, Karshak Thozilali Party 2, Kerala Socialist Party 2.
Karnataka—Janathapaksh 1.
Maharashtra—Peasants and Workers' Party 8, Republican Party 2, Muslim League 2, BKD 1, Lokshahi Samajwadi Aghadi Group 13, Shiv Sena 1, Samajwadi 4.
Manipur—Manipur Peoples' Party 23, Manipur Hills Union 13, Kuki National Association 2.
Meghalaya—All Party Hill Leaders' Conference 39, Hill State Peoples' Democratic Party 8.
Nagaland—United Democratic Front 36, Nagaland Nationalist Organisation 24.
Orissa—Pragati Legislature Party 57.
Punjab—Shiromani Akali Dal 25.
Tamil Nadu—DMK 173, ADMK 13, Forward Bloc 7, Muslim League 6, Tamil Nadu Communist Party 2, Tamil Arasu Kazhagam 1.
Uttar Pradesh—BKD 106, Hindu Maha Sabha 1, Muslim League 1, Soshit Samaj Dal 1.
West Bengal—RSP 3, Socialist Unity Centre 1, Workers' Party 1, Gorkha League 2, Muslim League 1.
Delhi—Muslim League 1.
Goa, Daman & Diu—Maharashtravadi Gomantak 18, United Goans (Sequiera Group) 9.

[5] Independents include the Speaker in the Legislative Assemblies of Karnataka, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu and West Bengal.

legislative council or for the creation of one where one does not exist if the proposal is supported by a resolution of the legislative assembly concerned.

Legislative Council (Vidhan Parishad)

The legislative council of a state comprises not more than one-third of the total number of members in the legislative assembly of the state and in no case less than 40 members.[1] About one-third of the members of the council are elected by members of the legislative assembly from amongst persons who are not its members, one-third by electorates consisting of members of municipalities, district boards and other local authorities, one-twelfth by registered teachers in educational institutions not lower in standard than secondary schools and a further one-twelfth by registered graduates of more than three years' standing. The remaining members are nominated by the Governor from among those who have distinguished themselves in the fields of literature, science, art, co-operative movement and social service. The legislative councils are not subject to dissolution but one-third of their members retire every second year.

Legislative Assembly (Vidhan Sabha)

The legislative assembly of a state consists of not more than 500 and not less than 60 members chosen by direct election from territorial constituencies in the state. The demarcation of territorial constituencies is to be done in such a manner that the ratio between the population of each constituency and the number of seats allotted to it, as far as practicable, is the same throughout the state. The term of an assembly is five years unless it is dissolved earlier.

Table 3·2 gives the strength of the legislative councils in states with bicameral legislatures and the number of seats and party position in the legislative assemblies in the states as on 1 April 1974. It also shows the position in the union territories having assemblies and in the Delhi Metropolitan Council.

Powers and Functions

The state legislature has exclusive powers over subjects enumerated in List II of the Seventh Schedule to the Constitution and concurrent powers over those enumerated in List III. The financial powers of the legislature include authorisation of all expenditure, taxation and borrowing by the state government. The legislative assembly alone has the power to originate money bills. The legislative council can make only recommendations in respect of changes it considers necessary within a period of fourteen days of the receipt of a money bill from the assembly. The assembly can accept or reject the recommendations.

Reservation of Bills

The Governor of a state may reserve any Bill for the consideration of the President. Bills relating to subjects like compulsory acquisition of property, measures affecting the powers and the position of High Courts, and imposition of taxes on the storage, distribution and sale of water or electricity in inter-state river or river valley development projects should necessarily be so reserved. No Bill seeking to impose restrictions on inter-state trade can be introduced in a state legislature without the previous sanction of the President.

Control over Executive

The state legislatures, apart from exercising the usual power of financial control, use all the normal parliamentary devices like questions, discussions, debates, adjournment and no-confidence motions and resolutions to keep a watch over the day-to-day work of the Executive. They also have their Committees on Estimates and Public Accounts to ensure that grants sanctioned by the legislature are properly utilised.

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[1] The legislative council of Jammu and Kashmir has only 36 members *vide* section 50 of the Constitution of Jammu and Kashmir.

JUDICIARY

High Courts

Every state has a High Court which stands at the head of the state's judicial administration. There are 17 High Courts in the country, including two having jurdisdiction over more than one state. Among the union territories, Delhi alone has a High Court of its own. Goa, Daman and Diu has a Judicial Commissioner while the other seven union territories come under the jurisdiction of different state High Courts. Each High Court consists of a Chief Justice and such other judges as the President may, from time to time, appoint. The Chief Justice of a High Court is appointed by the President in consultation with the Chief Justice of India and the Governor of the state. The procedure for appointing other judges is the same except that the Chief Justice of the High Court concerned is also consulted. They hold office until they attain the age of 62 and are removable in the same manner as a judge of the Supreme Court of India. To be eligible for appointment as a judge, one must have held a judicial office in India for ten years or must have practised as an advocate of a High Court or two or more such courts in succession for a similar period.

Table 3·3 gives the seat and territorial jurisdiction of the High Courts.

TABLE 3.3
JURISDICTION AND SEAT OF HIGH COURTS

No.	Name	Year of establishment	Territorial jurisdiction	Seat of the Court
1	Allahabad	1866	Uttar Pradesh	Allahabad (Bench at Lucknow)
2	Andhra Pradesh	1954	Andhra Pradesh	Hyderabad
3	Gauhati	1972	Assam, Manipur, Meghalaya, Nagaland, Tripura, Mizoram and Arunachal Pradesh	Gauhati (temporary Benches at Imphal, Agartala and Kohima)
4	Bombay	1861	Maharashtra and Dadra & Nagar Haveli	Bombay (Bench at Nagpur)
5	Calcutta	1861	West Bengal and Andaman & Nicobar Islands	Calcutta
6	Delhi	1966	Delhi	Delhi
7	Gujarat	1960	Gujarat	Ahmadabad
8	Himachal Pradesh	1971	Himachal Pradesh	Simla
9	Jammu & Kashmir	1928	Jammu & Kashmir	Srinagar and Jammu
10	Karnataka	1884	Karnataka	Bangalore
11	Kerala	1956	Kerala and Lakshadweep	Ernakulam
12	Madhya Pradesh	1956	Madhya Pradesh	Jabalpur (Benches at Indore and Gwalior)
13	Madras	1861	Tamil Nadu and Pondicherry	Madras
14	Orissa	1948	Orissa	Cuttack
15	Patna	1916	Bihar	Patna (temporary Bench at Ranchi)
16	Punjab & Haryana	1947	Punjab, Haryana and Chandigarh	Chandigarh
17	Rajasthan	1949	Rajasthan	Jodhpur

Every High Court has the power to issue to any person or authority and government within its jurisdiction directions, orders or writs (including writs which are in the nature of *habeas corpus, mandamus,* prohibition, *quo warranto* and *certiorari*, or any of them) for the enforcement of any of the Fundamental Rights and for any other purpose.

This power may also be exercised by any High Court exercising jurisdiction in relation to the territories within which the cause of action, wholly or in part, arises for the exercise of such power, notwithstanding that the seat of such government or authority or the residence of such persons is not within those territories.

The High Courts have powers of superintendence over all courts and tribunals within their jurisdiction. They can call for returns from such courts, make and issue general rules and prescribe forms to regulate their practices and proceedings and determine the manner and form in which books, entries and accounts shall be kept.

Subordinate Courts

Subject to minor variations, the structure and functions of the subordinate courts are more or less uniform throughout the country. A state is divided into a number of districts, each under the jurisdiction of a principal civil court presided over by a district judge. Sometimes he is assisted by additional district judges. Subordinate to a district judge is a hierarchy of different grades of civil courts.

Besides hearing suits, the civil courts exercise jurisdiction over several matters such as arbitration, guardianship, marriage, divorce and probate. Quasi-judicial tribunals distinct from the ordinary courts have also been set up under certain special Acts for determining some types of civil rights. In some cases, appeals lie from their orders to the ordinary civil courts. But even when no such right is given, they are subject to the constitutional right of superintendence of High Courts.

The constitution and organisation of criminal courts and their procedure are regulated by the Code of Criminal Procedure, 1973, which came into force with effect from 1 April 1974, repealing the Code of Criminal Procedure, 1898. The Code provides separate sets of magistrates for the discharge of the executive and judicial functions. The executive magistrates are under the control of the state government while the judicial magistrates are under the control of the High Court. On the executive side, for each district there is a district magistrate and under him a number of subordinate magistrates. These magistrates continue to deal with problems relating to the maintenance of law and order and the prevention of crime. On the judicial side, the judicial heirarchy of magistrates consists of the chief judicial magistrate at the district level and the judicial magistrates of the first class and second class. Broadly speaking, magisterial functions, which are essentially judicial in nature, are the concern of the judicial magistrates. In metropolitan areas, with a population of more than 10 lakhs, there are metropolitan magistrates who have larger powers for quicker disposal of cases.

Reform in Criminal Procedure

Radical changes in the criminal procedure have been made by the new Code of Criminal Procedure, 1973. The new Code provides for the separation of judiciary from the executive on an all-India basis and makes several important changes designed to expedite the disposal of cases, to improve efficiency, to prevent abuses and to afford relief to the poorer sections of the community.

The system of appointing honorary magistrates or justices of the peace has been done away with. Instead, a provision has been made for the appointment of retired or serving officers of government as special magistrates with summary powers to try special categories of petty cases. The jury system has also been abolished.

Under the Code, every person arrested with or without warrant shall be informed of the grounds of his arrest and in bailable cases, of his right to be released on bail. A person cannot be kept in police custody during investigation for more than 15 days, even by an order of court. No person shall be kept on remand by order of court for more than 60 days in any case, after which he will be entitled to be released on bail. Bail provisions have been liberalised. These include grant of anticipatory bail in certain cases.

Another major change is the doing away with preliminary enquiry in sessions cases. The powers of revision conferred on superior courts cannot be exercised in respect of interlocutory orders. The provision relating to compulsory stay of proceedings on the mere intimation by the party of his intention to move for a transfer has been omitted, but stay of proceedings can, however, be obtained from superior courts in proper cases. Provision has also been made to provide an opportunity to the accused to make his representation, if any, on the punishment proposed to be given after conviction.

The provision for demanding security from habitual offenders has been extended to anti-social offenders like smugglers, blackmarketeers and persons, who default in provident fund contribution or commit offences under the Untouchability (Offences) Act, etc.

A copy of the first information report will have to be given to the informant. If a police officer refuses to record the information, the aggrieved person can send it by post to the Superintendent of Police, who will pursue the matter.

Courts have been given power to punish blatant cases of perjury on the spot.

The period of detention in jail during remand shall be counted against the sentence of imprisonment ultimately awarded in the case.

Limits have been prescribed for the duration of security proceedings. Such proceedings shall ordinarily terminate, if they are not concluded within six months. Where the offence is punishable with imprisonment for two years or less, the investigation, if not completed within six months, can be stopped by a magistrate. Periods of limitation on a graded scale for launching criminal prosecutions have been provided in cases not punishable with imprisonment for more than three years.

Legal aid at the expense of the State has been made compulsory in all sessions cases, if the accused is too poor to engage a counsel at his expense. The state governments have been empowered to extend this provision to other cases by a notification.

Separation of Judiciary from Executive

Complete separation of the Judiciary from the Executive, which is a Directive Principle of State Policy, has been brought about on a uniform pattern with effect from 1 April 1974 in all the states and union territories except Jammu and Kashmir, Nagaland and tribal areas.

UNION TERRITORIES

Under article 239(1) of the Constitution, subject to laws enacted by Parliament, union territories are administered by the President acting, to such extent as he thinks fit, through an administrator appointed by him.

The administrators of Delhi, Goa, Daman and Diu, Mizoram and Pondicherry are designated as Lt.-Governors while the administrators of Andaman and Nicobar Islands, Arunachal Pradesh and Chandigarh are designated as Chief Commissioners. The Lt.-Governor of Goa, Daman and Diu is concurrently the Administrator of Dadra and Nagar Haveli. Lakshadweep has a separate administrator.

Under the Government of Union Territories Act, 1963, legislative assemblies and Councils of Ministers have been constituted in Goa, Daman and Diu, Mizoram and Pondicherry. The Delhi Administration Act, 1966 provides for a Metropolitan Council and an Executive Council for Delhi. Arunachal Pradesh has a Pradesh Council constituted under the North-East Frontier (Administration) Supplementary Regulation, 1971 and the administrator may appoint not more than five members of this Council as counsellors whom he may consult on matters relating to the administration of the territory.

The legislative assemblies in the union territories may make laws with respect to matters in the State field, namely, those enumerated in List II or List III in the Seventh Schedule insofar as they are applicable in relation to union territories. Parliament can also make laws with respect to such matters for the union territories.

The Metropolitan Council in Delhi has the right to discuss and make recommendations about matters insofar as they relate to Delhi.

ZONAL COUNCILS

The states and union territories on the Mainland except those in the north-eastern region are grouped into zones. Each zone has a high-level advisory body known as the Zonal Council which provides the forum for discussing matters of common interest to the states and union territories in that zone. The states of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and the union territories of Chandigarh and Delhi are in the Northern Zone. The Central Zone comprises the states of Madhya Pradesh and Uttar Pradesh while the states of Bihar, Orissa and West Bengal are in the Eastern Zone. The states of Gujarat and Maharashtra and the union territories of Goa, Daman and Diu, and Dadra and Nagar Haveli are in the Western Zone. The Southern Zone comprises the states of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu and the union territory of Pondicherry.

For the north-eastern region there is a body similar to the Zonal Councils to deal with matters of common interest in the states of Assam, Manipur, Meghalaya, Nagaland and Tripura and the union territories of Arunachal Pradesh and Mizoram. The North-Eastern Council, which came into being in August 1972, has certain additional functions. It has to formulate a unified and co-ordinated regional plan (which is in addition to the state plans) covering matters of common importance. In respect of projects or schemes intended to benefit two or more states, the Council has to recommend the manner in which they may be executed, managed or maintained, their benefits shared and the expenditure incurred. The progress of implementation of the plan and the expenditure thereon are supervised by the Council. The Council has to review from time to time the measures taken by the states for maintenance of security and public order and, as and when necessary, recommend further measures in this behalf.

LOCAL GOVERNMENT

Corporations

The corporations, established for the big cities under specific acts of the state legislatures, are headed by elected mayors. The administration of a city under a corporation is entrusted to three authorities: (i) general council of the corporation; (ii) standing committees of the council; and (iii) commissioner or executive officer. The general council appoints all the officers of the corporation except the commissioner who is usually appointed by the state government. The standing committees are elected by the council and carry out the main work of the administration covering taxation and finance, engineering works, health and education. The executive power of the corporation vests in the commissioner, who prescribes the duties of the various establishments and supervises their work. In addition to matters connected with the safety, health, education and other conveniences of the citizens, the jurisdiction of the corporation also extends to the maintenance of streets and bridges, avenues and parks, recreation grounds and markets. There were 34 corporations in the country in June 1974.

Municipal Committees and Councils

Municipal committees and councils in medium and small cities also have elected presidents. These also function through committees. All the members of a municipality constitute its general body which decides all questions of policy and important details of municipal administration. The powers of passing the budget, imposing taxation, voting expenditure and making rules and regulations vest in the general body. The day-to-day work of the municipality is carried on by an executive officer, drawn either from the state cadre of municipal executive officers or from the State Civil Service.

Local Self-Government in Districts

The system of Panchayati Raj or democratic decentralisation involves a three-tier structure of local self-governing bodies at the village, block and district levels. Specific powers and functions in the field of development and local administration have been assigned to Panchayati Raj institutions. Panchayati Raj now covers all states except Meghalaya, Nagaland and 24 out of 29 districts in Bihar.

Village Panchayats

Panchayats are elected by Gram Sabhas consisting of the entire adult population of the village. Elected by and from among the villagers, they are responsible for agricultural production, rural industries, medical relief, maternity and child welfare, management of common grazing grounds, maintenance of village roads, streets, tanks and wells and provision of sanitation and drainage. In some places Panchayats also look after primary education, maintenance of village records and the collection of land revenue. For building up funds they levy tax on houses and lands, fairs and festivals and sale of goods, impose octroi duties, and build up remunerative community assets.

In some states, Nyaya Panchayats with judicial functions have been set up. They are competent to try cases involving minor offences under the Indian Penal Code and other special and local laws. Their powers of punishment are limited to the imposition of moderate fines and they employ simple and summary procedure for the disposal of cases. Legal practitioners are not permitted to appear before them.

Cantonment Boards

Cantonment boards have been set up in cantonment areas to provide civic amenities and welfare services to the people living there. These boards are autonomous bodies subject to supervision and control by GOC-in-C of the Command and the central government. The number of elected and nominated members is kept equal in these boards varying from 1 to 7 although according to statutory provisions the number of nominated members may exceed the elected members by one. These boards have the power of taxation which is their main source of revenue. The budget estimates prepared by the boards are scrutinised and sanctioned by the GOC-in-C of the Command. There were 62 cantonment boards on 1 January 1974.

4 DEFENCE

India's defence policy aims at promoting and sustaining durable peace in the sub-continent by means of negotiations and co-operation among various countries in the region and at the same time equipping the defence forces as a safeguard against aggression.

The supreme command of the Armed Forces is vested in the President of India. The responsibility for national defence, however, rests with the Cabinet. All important questions having a bearing on defence are decided by the Cabinet Committee on Political Affairs, which is presided over by the Prime Minister. The Defence Minister is responsible to Parliament for all matters concerning the Defence Services. The administrative and operational control of the Armed Forces is exercised by the Ministry of Defence and the three Services Headquarters. The Ministry of Defence acts as the central agency for ensuring a co-ordinated development of the three Services, for conveying the Government of India's decisions on policy matters to the three Services Headquarters for implementation and for obtaining financial sanction for defence expenditure from Parliament.

ORGANISATION The three Services function under their respective Chiefs of Staff. As on 1 June 1974 the Chiefs of Staff were:

Chief of the Army Staff	General G.G. Bewoor
Chief of the Naval Staff	Admiral S.N. Kohli
Chief of the Air Staff	Air Chief Marshal O.P. Mehra

Army The Army Headquarters, located in New Delhi, functions under the Chief of the Army Staff. He is assisted by the Vice Chief of the Army Staff and four other Principal Staff Officers—Deputy Chief of the Army Staff, Adjutant-General, Quartermaster-General and Master-General of Ordnance—and two Heads of Branches, namely, Military Secretary and Engineer-in-Chief.

The Army is organised into five Commands—Western, Eastern, Northern, Southern and Central—each under a General Officer Commanding-in-Chief of the rank of a Lieutenant-General. The Commands are divided into Areas, Independent Sub-Areas and Sub-Areas. An Area is commanded by a General Officer Commanding of the rank of a Major-General and an Independent Sub-Area and Sub-Area by a Brigadier.

The Army consists of a number of arms and services. These are: Infantry, Armoured Corps, Regiment of Artillery, Corps of Engineers, Corps of Signals, Army Service Corps, Army Ordnance Corps, Army Medical Corps, Army Dental Corps, Corps of Electrical and Mechanical Engineers, Army Education Corps, Remount and Veterinary Corps, Army Postal Service Corps, Corps of Military Police, Intelligence Corps and Defence Security Corps.

The sanctioned strength of all ranks of the Army is 8.38 lakhs.

Navy The operational control of the Navy is exercised by the Naval Headquarters in New Delhi through a chain of commands.

At the Headquarters, the Chief of the Naval Staff is assisted by five Principal Staff Officers, namely, the Vice Chief of the Naval Staff, Chief of Personnel, Chief of Material, Chief of Logistics and Deputy Chief of the Naval Staff.

The Navy is organised into three Commands: Western Naval Command under the Flag Officer Commanding-in-Chief, Western Naval Command, Bombay; Eastern Naval Command under the Flag Officer Commanding-in-Chief, Eastern Naval Command, Visakhapatnam and Southern Naval Area under the Flag Officer Commanding, Southern Naval Area, Cochin.

The Navy has two Fleets—the Western Fleet and the Eastern Fleet. The two Fleets consist of the aircraft-carrier *INS Vikrant*, two cruisers, a number of frigate squadrons, including some of the latest types of anti-submarine and anti-aircraft frigates, a squadron of anti-submarine patrol vessels, one mine-sweeping squadron, conventional type submarines, a submarine depot ship and fast boats carrying surface-to-surface guided missiles. A squadron of Sea-king helicopters augments the air component of the aircraft-carrier *INS Vikrant*. Besides, there are some survey ships, a fleet tanker and a number of auxiliary craft. The survey unit of the Navy carries out survey of India's coast and approaches to the harbours. A naval organisation, under the Naval Officer-in-Charge, Andamans and Nicobars, is functioning at Port Blair with necessary patrol craft and communication facilities to ensure the security of the Bay Islands. A naval establishment, *INS Kardeep*, has been established at Kamorta in the Nicobar Islands.

A naval base and dockyard is being developed at Visakhaptnam on the east coast. The first phase of modernisation and expansion programme of the Naval Dockyard, Bombay, has been completed and the second phase is under way. The development of a naval base at Okha has been taken in hand and a Coast Battery has already been set up. The phased development of Port Blair as an advanced naval base has been approved.

Since 1964, India has been building her own naval craft. A survey ship and three defence boats have already been commissioned. Three more seaward defence boats, an ocean-going tug, two Landing Craft Utilities, three tankers and four Harbour Utility tugs are under construction.The first indigenously built frigate of the Leander class, *Nilgiri*, was commissioned on 3 June 1972. The second Leander, *Himgiri*, is being fitted out. The third, *Udaygiri*, was launched in 1972 and the fourth, *Dunagiri*, in 1974.

Air Force

The Indian Air Force is organised into five Commands and an independent Operational Group. These are: Western Air Command, Central Air Command, Eastern Air Command, Training Command, Maintenance Command and No. 1 (Opl.) Group.

At the Air Headquarters in New Delhi, the Chief of the Air Staff is assisted by four Principal Staff Officers, namely, Vice Chief of the Air Staff, Deputy Chief of the Air Staff, Air Officer-in-Charge, Administration and Air Officer-in-Charge, Maintenance. Each of them controls a group of Directorates.

The Air Force fleet, which is made up of 45 squadrons, consists of a variety of fighter, bomber, transport and maritime reconnaissance aircraft. Among the fighter aircraft are SU-7s, Mysteres, Hunters, Gnats, MiG-21s and HF-24s. Canberras comprise the bomber fleet. The transport fleet consists of AN-12s, IL-14s, Dakotas, Fairchild Packets, Caribous, Otters, TU-124s and India-built HS-748s. Super-Constellations are deployed for maritime reconnaissance. Helicopters in use are MI-4s, MI-8s and Alouettes, the last being built in India. India-built HT-2 and HJT-16 (Kiran), T6G Texan, Dakotas and Vampires are used for training purposes.

Commissioned Ranks

The following are the commissioned ranks in the three Services; each rank is shown opposite to its equivalent in the other Services.

Army	*Navy*	*Air Force*
General	Admiral	Air Chief Marshal
Lieutenant-General	Vice-Admiral	Air Marshal
Major-General	Rear-Admiral	Air Vice-Marshal
Brigadier	Commodore	Air Commodore
Colonel	Captain	Group Captain
Lieutenant-Colonel	Commander	Wing Commander
Major	Lieutenant-Commander	Squadron Leader
Captain	Lieutenant	Flight Lieutenant
Lieutenant	Sub-Lieutenant	Flying Officer
Second Lieutenant		Pilot Officer

EXPENDITURE

Table 4.1 shows the trend in total defence expenditure since 1964-65, its percentage to the total expenditure of the union government and its percentage to the gross national product.

TABLE 4.1
DEFENCE EXPENDITURE

Year	Total defence expenditure (Rs crores)	Total expenditure of Govt. of India (Rs crores)	Gross national product[1] (Rs crores)	Defence expenditure as percentage of total Govt. expenditure	Defence expenditure as percentage of gross national product
1964-65	806	2,902	21,111	27.8	3.8
1965-66	885	2,946	21,856	30.0	4.0
1966-67	909	3,798	25,162	23.9	3.6
1967-68	968	3,533	29,686	27.4	3.3
1968-69	1,033	3,431	30,519	30.1	3.4
1969-70	1,101	3,912	33,701	28.1	3.3
1970-71	1,199	4,855	36,369	24.7	3.3
1971-72	1,525	5,719	38,356	26.7	4.0
1972-73	1,652	5,944	41,108	27.8	4.0
1973-74 (RE)	1,753	6,510	44,067	26.9	3.9
1974-75 (BE)	1,915	7,303	N.A.	26.2	N.A.

[1] Provisional, based on Economic Survey 1973-74.
RE—Revised estimates. BE—Budget estimates. N.A.—Not available.
Note: Assumed growth rate for 1973-74 is 7.2 per cent.

TRAINING INSTITUTIONS

National Defence Academy

The National Defence Academy, Khadakvasla, conducts a three-year combined basic military training course for potential officers of the three Services after which they receive specialised training at their respective Service establishments. The cadets are also trained up to the degree level of an Indian university. Admissions to the Academy are made on the basis of a qualifying bi-annual written examination conducted by the Union Public Service Commission at different centres in the country, followed by an interview before a Services Selection Board. Boys who have passed the Higher Secondary or an equivalent examination and are between 16 and 18½ years of age on the first day of the month in which the course starts are eligible for admission. They must be unmarried and remain so during the period of their stay at the Academy.

All expenses of the cadets while at the Academy, except the pocket expense of Rs 30 per month, are met by the government. Where the monthly income of parents is less than Rs 350, even this expense is borne by the government.

Defence Services Staff College

The Staff College at Wellington provides training for staff appointments to serving officers on an inter-Services basis. About 300 officers from the three Services are trained every year.

National Defence College

The National Defence College in New Delhi trains senior officers of the three Services and senior civilian officers of the central services in politico-military studies.

Armed Forces Medical College

The Armed Forces Medical College, Poona, besides imparting training to newly commissioned medical officers, runs refresher courses for medical officers of the Armed Forces as well as specialist courses in hygiene, X-ray, blood-transfusion and pathology. It also conducts an MBBS course and a degree course in nursing.

Army Colleges and Schools

The Indian Military Academy, Dehra Dun, is the premier centre for training officers of the Army. The main source of entry into the Academy is the National Defence Academy. Cadets passing out of the Academy at Khadakvasla receive one year's training at Dehra Dun before being commissioned. The other categories of entrants in higher age groups are those who have qualified in the competitive entrance examination of the Union Public Service Commission and the Services Selection Board for 1½ years' training, graduate cadets of the NCC for a year and a half, other graduates selected for specialised commissions in the technical arms for a year and serving regular or Territorial Army personnel—JCOs and NCOs—for one year, joining through the Army Cadet College.

The Army Cadet College in Poona trains selected Other Ranks to acquire officer qualities and general academic education for entry to the Military Academy for the grant of commissions.

The Officers' Training School at Madras trains officers who are granted Short Service Commissions in the Army.

The Armoured Corps Centre and School, Ahmadnagar, conducts training in the tactical handling of armoured fighting vehicles and their driving and maintenance. The School of Artillery, Deolali, provides training in field branch and air defence artillery. The Infantry School, Mhow, conducts courses for infantry officers and men. The College of Combat, which conducts the Higher Command Course, the Senior Command Course and the Junior Command Course, came into existence in 1971. While the College of Combat and the Infantry School are located at Mhow, the Junior Leaders' Wing of the Infantry School is located at Belgaum.

The College of Military Engineering, Kirkee, imparts training to officers and Other Ranks in all aspects of military engineering. Longer courses of over two years' duration are also conducted to train officers up to the degree standard. The Military College of Telecommunication Engineering at Mhow imparts basic and advanced technical training in telecommunications and signal tactics. The Army Ordnance Corps School at Jabalpur imparts specialised corps training in the identification and preservation of all items, including ammunition and explosives stocked by the ordnance depots. The Institute of

Defence Management at Secunderabad trains Service and civilian officers in modern defence management techniques.

Some of the other Army training centres and schools are: the High Altitude Warfare School; Counter Insurgency and Jungle Warfare School; the Army Service Corps School, Bareilly; EME School, Baroda; Military College of Electronics and Mechnical Engineering, Secunderabad; Remount Veterinary Corps Centre and School, Meerut; Army Education Corps Training College and Centre, Pachmarhi; Intelligence Training School and Depot, Poona; Corps of Military Police Centre and School, Faizabad; Army School of Physical Training, Poona; Army Air Transport Support School, Agra; and the Army Clerks' Training School, Aurangabad.

Naval Training Establishments

INS Venduruthy and the Naval Air Station, *Garuda*, both located at Cochin, are the principal training centres for the officers and men of the Navy. While *INS Venduruthy* imparts training in gunnery, navigation, torpedo and anti-submarine and communications, *Garuda*, has training aircraft of the Navy and some training schools.

Mechanical engineers and artificers are trained at *INS Shivaji* in Lonavla (Maharashtra). Junior engineers and electrical officers of the Service receive training at the engineering college at Lonavla.

INS Valsura, Jamnagar, trains officers and men of the Electrical Branch of the Service. With most of the ships now fitted with complicated electronic equipment, training has been geared to the present requirements of the Service.

New recruits joining the Navy are trained at *INS Circars*, Visakhapatnam, and on completion of their courses become sailors. Sea training is imparted by the two Fleets. Officers and men of the Supply and Secretariat Branch are trained at *INS Hamla*, Malad, Bombay.

To meet the increasing training requirements, a naval academy has been established at Cochin. A Sailors' Training Establishment is being set up at Dabolim in Goa. The Boys' Training Establishment, now at Visakhapatnam, is to be moved to Chilka Lake in Orissa.

Air Force Training Institutions

The basic flying training for pupil pilots is imparted at the Elementary Flying School at Bidar and the intermediate training at the Air Force Flying Academy, Hyderabad. Advanced flying and conversion training on jets and twin-engined aircraft is conducted at the Fighter Training and Transport Training Wings of the Air Force at Hakimpet and Yelahanka. Pupil navigators receive their initial training at Hyderabad.

The Air Force Administrative College, Coimbatore, trains non-technical officers in various ground duties. Technical officers are trained at the Air Force Technical College, Jalahalli. Senior technical officers with more than 13 years of service are trained in management techniques at the Air Force Station, Jalahalli. A school at Sambre near Belgaum trains airmen in accounting, equipment, general office duties, drill instruction and catering. Schools at Jalahalli train airmen in higher signal, electrical instruments and police duties. Flying instructors are trained at a school at Tambaram. Another school, located at Tambaram, trains airmen in workshop trades such as airframe, engine armament, safety equipment, photo and motor mechanics. A school for higher staff studies in joint air warfare is functioning at Hyderabad. Paratroopers for air-borne units of the Army are trained at the Paratroopers Training School, Agra.

A composite Air Force Academy near Hyderabad has started functioning. Training, at present, is being given in the Flying Duties (Pilots) courses in the intermediate stage. When fully operational, the Academy will start giving training to all aircrew and Ground Duties (non-technical) officers.

Medical and aircrew officers receive specialised training at the Institute of Aviation Medicine, Bangalore.

Rashtriya Indian Military College

Run on the lines of public schools, the Rashtriya Indian Military College, Dehra Dun, prepares future officers for the three Services by imparting preliminary pre-cadet training to pupils who desire subsequently to choose a military career. It serves as a feeder to the National Defence Academy.

Sainik Schools

Like the Rashtriya Indian Military College, 17 Sainik Schools prepare boys in the age group 9-18 for the entrance examination of the National Defence Academy. So far, 1,419 boys from these schools have been admitted to the Academy.

SUPPLIES, PRODUCTION AND RESEARCH

A substantial part of the defence stores needed by the Services is now being developed and produced in the country. The responsibility for this has been entrusted to two separate Departments—Defence Production and Defence Supplies—in the Ministry of Defence. The Department of Defence Production organises, directs and co-ordinates production of material and equipment required by the Armed Forces. It carries out its responsibility through the Directorates of Planning and Co-ordination, Ordnance Factories and Inspection, Defence Research and Development Organisation and nine public sector undertakings.

The Department of Defence Supplies handles the problems of indigenisation of defence stores by making use of the facilities available in the civil sector. The Department also helps in establishing the production of newly developed items. In the task of indigenisation, it operates through a number of technical committees.

The Defence Production Board formulates policies in the field of production and plans future growth on balanced and economic lines. The policy on foreign collaboration agreements for defence production was announced by the government on 25 April 1973. Under this, the existing practice of periodic extension of such agreements will be ended. Instead, outright purchase will be made of the required know-how which will be improved by research and development within the country.

Ordnance Factories

Twenty-eight ordnance factories turn out a wide range of defence items such as arms, ammunition, chemicals, explosives, general stores and vehicles for the Armed Forces. There are two more factories, namely, the Heavy Vehicles Factory at Avadi, which produces *Vijayanta* tanks, and the Accelerated Freeze Dried Meat Factory at Tundla, which produces freeze dried meat for use by troops deployed at high altitudes. The ordnance factories now meet the entire requirements of the Army in respect of small arms and light artillery. The bulk of guns and ammunition required by artillery regiments and mountain divisions is also being met by them.

There is a continuous process of rehabilitating and modernising the ordnance factories and augmenting their capacities to meet the increasing requirements of the Services and to achieve self-sufficiency in the production of modern defence stores. Production of bridges and mortar bomb components and other items has been taken up. A major explosives project has been completed. A new project for the manufacture of propellants and ballistics is making progress. A new plant for the manufacture of nitric acid and a modern TNT plant are also being established. A project to manufacture an indigenously-designed field gun has been approved. Some new items of vision and sighting instruments as well as optical instruments for missiles have already been produced. A Special Steel Project to provide special steels of critical specifications required for modern armaments and a project for the manufacture of 7.62 mm medium machine gun have been approved.

Over the years the value of production in the ordnance factories has gone up from Rs 5 crores in 1947-48 to Rs 235 crores in 1972-73.

Defence Undertakings in Public Sector

Eight public sector undertakings, employing about 75,000 persons and controlled by the Department of Defence Production, are currently engaged in the manufacture of various types of equipment for the Armed Forces as well as for civilian use. The largest of these undertakings is the Hindustan Aeronautics Ltd. Set up in 1964, it has six constituent units, namely, the Bangalore Division, the three MiG Divisions at Nasik, Koraput and Hyderabad, the Kanpur Division and the Lucknow Division. It is currently manufacturing supersonic jet fighter HF-24 (Marut), supersonic jet interceptor MiG-21M, light jet fighter Gnat, the jet trainer HJT-16 (Kiran), the Alouette-III and SA-315 helicopters, the transport aircraft HS-748, the agricultural aircraft 'Basant' and air-to-air missiles.

The Bharat Electronics (BEL) at Bangalore, which started production in 1956 with only two electronic items, has diversified its production and now manufactures over 60 different items of equipment. These range from tiny transmitters to highly sophisticated radars. BEL is also producing a number of electronic components, *e.g.*, radio and television receiving valves, germanium and silicon transistors and diodes, X-ray tubes and TV picture tubes. A new unit of BEL has been set up at Ghaziabad for the production of electronic equipment to meet the needs of an air defence ground environment system.

The Mazagon Dock, Bombay, the Goa Shipyard and the Garden Reach Workshops, Calcutta, are building and repairing ships, dredgers, barges and tugs. The Mazagon Dock is also building Leander class frigates for the Navy. Six such ships have been ordered by the Navy. The vessels currently under construction include a luxury passenger-*cum*-cargo ship, *Harshvardhan*, three dredgers and a number of ore-carrying barges. In the Goa Shipyard, four naval tugs and two 500-ton barges are being built. The Garden Reach Workshops are building four dredgers, including one hopper capacity dredger and four tugs.

The Bharat Dynamics Ltd. at Hyderabad, which was set up in 1970 for manufacturing anti-tank missiles, has gone into production.

The Bharat Earthmovers Ltd. at Bangalore manufactures broad-gauge railway coaches and heavy earth-moving equipment.

The Praga Tools at Hyderabad manufactures such items as drilling tools and cutter grinders, surface grinders, milling machines, machine tool accessories and railway screw coupling, auto diesel spares, forgings and castings.

A ninth defence public undertaking, *Mishra Dhatu Nigam*, was registered in 1973 at Hyderabad. It will produce special metals and super alloys required for aeronautics, electronics and missiles.

Research and Development

The Research and Development Organisation, created in 1958, aims at providing the Armed Forces with newer and more efficient equipment. To achieve this, it makes use of basic, applied and operational research for the fabrication of instruments, weapons, ammunition, engineering and general stores, telecommunication equipment and other critical materials (For details, see chapter 'Scientific Research').

TERRITORIAL ARMY

The Territorial Army, which was raised in 1949, is designed to give the youth of the country an opportunity for receiving military training in their spare time and to serve the country in times of emergency by providing units to the regular Army. It is not required to perform military service outside India save under a general or special order of the central government.

All able-bodied nationals of India between the ages of 18 and 35 (with relaxation in the upper age limit for entry into certain technical units) and possessing the requisite qualifications are eligible to join the Territorial Army as an officer or Other Rank.

A limited number of appointments on the permanent staff, with a tenure of three to five years, are offered to all ranks of the Territorial Army provided they possess the necessary experience and qualifications. Territorial Army personnel are also entitled to the award of decorations and medals.

The authorised strength of the Territorial Army on 1 April 1974 was 44,626 and the actual strength 35,839.

NATIONAL CADET CORPS

The National Cadet Corps strives to stimulate interest among the youth in the defence of the country so as to build up a reserve of manpower to enable the Armed Forces to expand rapidly. The participants have, however, no liability for active military service. Participation in the NCC, which was made compulsory for all able-bodied college students in 1964, is now entirely voluntary except in two of the Indian universities. A certain percentage of the total intake of candidates for commissioned ranks in the Army, Navy and Air Force, on the basis of direct entry to the Armed Forces training institutions, is reserved for NCC cadets of the three Services.

The NCC consists of three divisions: Senior, Junior and Girls. The strength of the Corps on 31 December 1973 was 11,88,513. Of this, 5,25,980 were in the Senior Division and 6,62,533 in the Junior Division. The number of girls on that date was 56,359 in the Senior Division and 62,427 in the Junior Division.

WELFARE OF EX-SERVICEMEN

The Director-General of Resettlement in the Defence Ministry looks after the resettlement of ex-Servicemen in government and private services, vocational and technical trades, land colonies and transport services. A certain percentage of vacancies has been reserved by both the central and state governments for the ex-Servicemen. To encourage self-employment, several schemes are being implemented in stages. These include establishment of Ex-Servicemen's Co-operative Industrial Estates in selected areas, setting up of industrial and shopping centres by using surplus military land, reservation of factory plots and formation of special industrial projects. There are also other schemes in operation which train ex-Servicemen who prefer employment in professions needing background expertise and knowledge. These include training in industrial and agricultural skills, animal husbandry, teaching and social work.

An important organisation which assists ex-Servicemen and their families, in close liaison with the local administration, is the Soldiers', Sailors' and Airmen's Board. The Board, with its headquarters in New Delhi, co-ordinates the activities of the State Boards. A number of central funds like the Flag Day Fund, the Armed Forces Benevolent Fund and the Armed Forces Reconstruction Fund are also used for the rehabilitation of ex-Servicemen.

REHABILITATION OF WAR VICTIMS

Following the Indo-Pak war in December 1971, both the central and state governments formulated a number of schemes to extend benefits and facilities to the war-bereaved families particularly the widows, the disabled and their dependents. A special organisation in the Ministry of Defence has been created to co-ordinate action on the various schemes. Among the important central schemes is one which allows liberal pension/concessions for the widows and families of officers and men killed in action and for those disabled. The scheme, which came into operation from 1 February 1972, is more liberal than any scheme elsewhere in the world and covers all those affected in the military operations since the Pakistani aggression in Jammu and Kashmir in 1947. This apart, the central government is to meet the full cost of the education up to the end of the first degree course of the dependents of all the personnel of the Defence and paramilitary forces killed or permanently disabled. It will also bear the full cost of such dependents as have already taken up post-graduate courses.

Other schemes, which are in addition to existing concessions, relate to priority in obtaining employment under the central government and public undertakings. Disabled servicemen are entitled to concessions in age, educational qualifications and medical standards. Up to two family members of each serviceman killed in action will be given Class III and Class IV jobs under the Ministry of Defence without registration at the Employment Exchanges. Seats have also been reserved for them in technical institutions. A special fund of Rs 5 crores has been created in the Ministry of Defence to meet those needs of war-bereaved families which cannot be met through the regular facilities made available by central and state governments.

State schemes include cash grants, ex-gratia allotment of land for agricultural purposes and residential plots on concessional rates.

5 EDUCATION

The literacy rate in India has gone up from 16.6 per cent in 1951 to 29.45 per cent in 1971. Four out of five children in the age group 6-11 are today at school as compared to one out of three two and a half decades ago. Primary education is now free in all the states and compulsory in most of the states. There were about 8.26 crore students in schools in 1972 as against 2.35 crores in 1950-51. At the university stage, the number of students increased by more than eight times and that of colleges more than five times.

Education in India is primarily the responsibility of state governments but the union government has also been entrusted with certain responsibilities specified in the Constitution. These include co-ordination of educational facilities, determination of standards of higher education, scientific and technical education, research, and promotion of Hindi and all other Indian languages. Most of the educational development plans are formulated and implemented with some assistance from the central government, which is also responsible for the running of five central universities of Aligarh, Banaras, Delhi, Jawaharlal Nehru and Visva Bharati and other similar institutions. It also runs 170 Kendriya Vidyalayas (central schools) in different parts of the country. A special responsibility of the union government is the promotion of the education of the weaker sections.

POLICY

An Education Commission was appointed in 1964 with Dr D.C. Kothari as chairman to advise the union government on a national pattern and development of education. Based largely on its recommendations, the government formulated a National Policy on Education which was issued in the form of a government resolution in 1968. The key points were: (i) free and compulsory education up to the age of 14; (ii) improved status, emoluments and education of teachers; (iii) three-language formula and development of regional languages; (iv) equalisation of education of science and research; (v) development of education for agriculture and industry; (vi) improvement in quality and production of inexpensive text-books; and (vii) investment of 6 per cent of national income in education.

PATTERN

The predominant pattern of education in the country comprises eight years of integrated elementary education, three years of secondary education with diversified courses to give it a vocational bias and make it a terminal point for entry into a trade or profession, and three years of university education leading to the first degree. Some of the states have adopted a pattern of seven years of elementary education followed by four years of secondary education.

The Education Commission had, however, suggested a uniform pattern of 15 years' duration leading to the first degree (10 years of high school education, two years of higher secondary education and three years for the first degree course). So far, only Andhra Pradesh, Karnataka and Kerala have introduced the new pattern.

PLANS AND EDUCATION

In the two decades of planned development since 1951, the number of educational institutions[1] has more than doubled. The number of teachers

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[1] Excluding, among others, adult education centres and technical institutions.

TABLE 5.1

ACHIEVEMENTS AND TARGETS AT DIFFERENT LEVELS OF EDUCATION

Particulars	1950-51	1955-56	1960-61	1965-66	1972[1]	Fifth Plan targets
Number of pupils in classes I to V (*lakhs*)	191.5	251.7	349.9	504.7	614.3	782.1
Percentage thereof to total population in age group 6-11	42.6	52.8	62.4	76.7	81.9	97.1
Number of pupils in classes VI to VIII (*lakhs*)	31.2	42.9	67.0	105.3	140.8	215.8
Percentage thereof to total population in age group 11-14	12.7	16.5	22.5	30.8	35.3	47.1
Number of pupils in classes IX to XI/XII (*lakhs*)	12.2	18.8	28.9	50.4	70.8	112.1
Percentage thereof to total population in age group 14-17	5.3	7.4	10.6	16.2	20.8	26.1
Number of pupils at the university stage—arts, science and commerce (*lakhs*)	3.6	6.3	8.9	14.9	29.3	46.5
Percentage thereof to total population in age group 17-23	0.8	1.4	1.8	2.7	4.0	6.0
Percentage of students reading science at university stage	37.8	33.0	26.9	29.5	43.8	—
Number of primary/junior basic schools	2,09,671	2,78,135	2,30,399	3,91,064	4,14,406	—
Number of middle/senior basic schools	13,596	21,730	49,663	75,798	94,199	—
Number of high/higher secondary schools	7,288	10,838	17,257	27,477	38,488	—
Number of multi-purpose schools	—	255	2,115	2,386	4,881[2]	—
Number of training schools	782	939	1,138	601	357	—
Number of training colleges	53	107	478	1,272	1,139	—
Number of arts, science (including research institutions) and commerce colleges	542	772	1,122	1,788	2,876	—
Number of universities	27	32	45	64	90	—
Number of teachers						
Primary schools	5,37,918	6,91,249	7,41,515	9,44,377	10,96,561	—
	(58.8)	(61.2)	(64.1)	(70.5)	(82.6)	—
Middle schools	85,496	1,48,394	3,45,228	5,27,754	6,70,629	—
	(53.3)	(58.5)	(66.5)	(76.9)	(83.1)	—
High/Higher secondary schools	1,26,504	1,89,939	2,96,305	4,79,060	6,19,507	—
	(53.8)	(59.7)	(64.1)	(68.5)	(78.6)	—
Universities, arts and science colleges	18,648	27,883	41,759	66,882	91,069[2]	—

[1] Provisional.

[2] Figures are for 1968-69.

Note: Figures in brackets represent the percentage of trained teachers.

has gone up by about three times and that of students by about 3½ times. The achievements during the last two decades and targets of the Fifth Plan are given in Table 5.1. Expenditure on education also went up from Rs 153 crores in the First Plan to Rs 786 crores in the Fourth Plan. The proposed outlay for the Fifth Plan is Rs 1,726 crores. Table 5.2 gives details of the expenditure.

TABLE 5.2
EXPENDITURE[1] ON EDUCATION IN FOUR PLANS AND OUTLAY FOR FIFTH PLAN

Major heads	First three Plans	Fourth Plan		Fifth Plan	
		Estimated expenditure (Rs crores)	Percentage	Proposed outlay (Rs crores)	Percentage
Elementary education	556.0	239.0	30	743.0	43
Secondary education		140.0	18	241.0	14
University education	149.0	195.0	25	337.0	20
Social education	11.0	4.5	1	35.0	2
Cultural programmes	10.0	12.0	2	35.0	2
Other educational programmes	96.0	89.5	11	171.0	10
TOTAL: General education	822.0	680.0	87	1,562.0	91
Technical education	194.0	106.0	13	164.0	9
GRAND TOTAL	1,016.0	786.0	100	1,726.0	100

[1] Estimated.

Broadly speaking, the Fourth Plan aimed at making progress towards implementing the Constitutional Directive of free and compulsory education for the age group 6-14. At secondary and higher stages of education more emphasis was laid on consolidation and diversification so as to meet the diverse needs of trained manpower of requisite standard. However, as Table 5.3 shows, targets laid down for elementary education were not realised in full, more so in case of girls. The anticipated enrolment in secondary education also showed a shortfall, but that in higher education was exceeded.

TABLE 5.3
ENROLMENT, TARGETS AND ACHIEVEMENTS IN THE FOURTH PLAN

(*in lakhs*)

Age group/classes		1968-69	1973-74 (target)	1973-74 (likely position)
6-11/I-V				
	Boys	342.10 (93)	412.50 (105)	393.53 (100)
	Girls	201.79 (57)	273.30 (73)	244.01 (66)
	TOTAL	543.89 (76)	685.80 (90)	637.54 (84)
11-14/VI-VIII				
	Boys	87.11 (45)	121.90 (56)	104.92 (48)
	Girls	33.40 (18)	59.10 (29)	45.37 (22)
	TOTAL	120.51 (32)	181.00 (45)	150.29 (36)
14-17/IX-XI-XII				
	Boys	50.90 (29)	70.00 (35)	61.60 (31)
	Girls	17.40 (10)	26.90 (14)	23.40 (12)
	TOTAL	68.30 (20)	96.90 (25)	85.00 (22)
17-23/University stage	TOTAL	16.90 (2.9)	26.60 (3.9)	30.00 (4.4)

Note: Figures in brackets indicate enrolment as percentage of the population of relevant age group.

The Fifth Plan lays emphasis on (i) ensuring equality of educational opportunities as part of the overall plan of ensuring social justice; (ii) establishing closer links between the pattern of education, on the one hand, and the needs of development and the employment market, on the other; (iii) improvement of the quality of education imparted; and (iv) involvement of the academic community, including students, in the tasks of social and economic development.

ELEMENTARY EDUCATION

Under a Directive Principle of State Policy, free and compulsory education is to be provided for all children up to the age of 14. In pursuance of this directive, all states have introduced free education for children in the age group 6-11. It is also free for children in the age group 11-14 in all states except Orissa, Uttar Pradesh and West Bengal. Even in these states, girl students and students from backward communities get free education.

All states have compulsory Primary Education Acts except Manipur, Nagaland and Tripura. Of the union territories, Andaman and Nicobar Islands, Chandigarh and Delhi have such legislation. However, even where such legislation exists, penal clauses are seldom enforced because of socio-economic reasons. Instead, incentives such as mid-day meals, free books and uniforms are provided to attract children to school.

SECONDARY EDUCATION

Education is free up to the secondary stage in Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Andaman and Nicobar Islands, Arunachal Pradesh and Lakshadweep and in government institutions in Jammu and Kashmir, Nagaland, Dadra and Nagar Haveli and Pondicherry. It is free for girls in Gujarat, Madhya Pradesh, Manipur, Orissa, Rajasthan, Tripura and Uttar Pradesh. Children belonging to the scheduled castes and tribes get free education in all the states.

HIGHER AND UNIVERSITY EDUCATION

Post-secondary education is imparted through arts and science and professional colleges, research institutions and universities. In states, which have Boards of Higher Secondary and Intermediate Education, post-intermediate education is given under the direction of universities in respect of courses of study, examinations and award of degrees and diplomas.

There are at present 95 universities[1] besides a number of institutions which also impart higher learning. These institutions are also deemed to be universities for the purposes of the University Grants Commission Act, 1956. Many of the research laboratories and institutions mentioned in the chapter 'Scientific Research' are recognised by the Association of Indian Universities as centres of higher research.

University Grants Commission

The University Grants Commission promotes and co-ordinates university education and determines and maintains standards of teaching, examination and research in the universities. It has the authority to make appropriate grants to different universities and implement development schemes.

The Association of Indian Universities, earlier known as Inter-University Board, provides the forum for the discussion of university problems and for the mutual recognition of degrees and diplomas awarded by the universities in India. The functions of the Association are advisory in character.

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[1] For the list, see Appendices.

VOCATIONAL AND TECHNICAL EDUCATION

Vocational and technical education is provided at school and higher levels. Most of the states have institutions for vocational and technical education at the secondary and higher secondary levels. These provide training in agriculture, commerce, engineering, forestry, medicine, animal husbandry, arts and crafts and primary school teacher training. The Industrial Training Institutes under the union Ministry of Labour and state labour departments also train persons who have read at least up to 8th or 9th standards. There are also junior technical schools which prepare students especially for the engineering trades. A few pre-vocational training centres are also being conducted on an experimental basis with assistance from UNICEF and ILO.

Five national institutions at Bombay, Kanpur, Kharagpur, Madras and New Delhi provide facilities for high level of education and research in engineering and technology. These institutions admit about 1,250 students annually to under-graduate courses. Besides, these institutions along with the Indian Institute of Science, Bangalore, admit nearly 2,000 students every year to the post-graduate and research courses. In addition, 60 other engineering colleges and university departments offer facilities for post-graduate courses and research with an annual intake of about 2,400 students. There are also 14 regional engineering colleges and a number of other technological institutions and polytechnics providing facilities for education in various branches of engineering and technology. For specialised courses such as mining and metallurgy, industrial engineering, forge and foundry and architecture, a number of centres have been established. To integrate engineering education with practical training, 80 engineering colleges and polytechnics are now offering 'sandwich' courses in collaboration with industry. The duration of such courses for degree in engineering is 5½ years and for diploma 3½ years.

The number of institutions for degree and diploma courses in engineering in 1973 was 138 and 284 respectively as compared to 53 and 89 in 1951. In 1973, the intake for degree and diploma courses was about 60,000.

India is now in a position to meet the technical manpower requirements during the next two Five Year Plans.

ADULT EDUCATION

To further the National Policy on Education, the Ministry of Education operates a scheme to eradicate illiteracy among the adult population. The central idea behind the programme is to enable them to improve their lot and create in them an urge for change from traditional to progressive society. The field programme of adult education with adult literacy as the core activity is the responsibility of state governments and union territory administrations. The union Ministry of Education co-ordinates programmes, provides supporting services and conducts pilot projects which are of importance to the programme of social education in the country.

A pilot project called the Farmers' Functional Literacy Programme was launched in 1967-68 in three selected districts as a joint integrated programme of three central ministries, namely, Education, Agriculture and Information and Broadcasting, to help the illiterate farmers to acquire not only literacy skills but also agricultural know-how which could be used by them. So far, 2,00,000 adult farmers have been made functionally literate. Another 1,00,000 are undergoing functional literacy courses.

Facilities for adult education for industrial workers and their families are also provided by the Ministry of Education through institutes in selected areas where there is a concentration of industrial population. Two such institutes, one at Indore and the other at Nagpur, are functioning.

The National Board of Adult Education promotes and evaluates the programme of adult education in the country. It also provides financial assistance to voluntary organisations for adult literacy work.

WOMEN'S EDUCATION

The central and state governments have taken a number of steps to stimulate the education of girls and women. These include creation of separate cells in the state Directorates of Education to look after programmes for girls' education, establishment of polytechnics for girls, construction of staff quarters for women teachers in rural areas and girls' hostels, introduction of condensed educational courses, assistance to voluntary educational organisations working in the field of women's education and holding of seminars in different states to discuss problems and programmes of girls' education.

The National Council for Women's Education advises the central and state governments in framing programmes and policies for education of women.

There were about 3.13 crore girls at school in 1973-74: 2.44 crores in classes I to V, 45.4 lakhs in classes VI to VIII and 23.4 lakhs in classes IX to XII.

LITERACY

In 1951, only 16.6 per cent of the people in India could read and write. The percentage went up to 24.0 in 1961 and to 29.45 in 1971. According to the 1971 census (see Table 5.4), Kerala had the highest literacy rate, 60.42 per cent, and Tamil Nadu and Maharashtra came next with 39.46 and 39.18 per cent respectively. Chandigarh led the union territories with a percentage of 61.56. Despite the rise in the literacy rate and the total number of literates, the number of illiterates has increased from 33.4 crores in 1961 to 38.6 crores in 1971 due to fast growing population. Rural folk and women form the bulk of illiterates. In 1971, more than half the people, nearly 52.4 per cent, were literate in urban areas, whereas less than one fourth of the rural population, 23.7 per cent, was literate. Kerala topped the states in women's literacy also, the percentage being 54.31. Tamil Nadu with 26.86 and Maharashtra with 26.43 came second and third respectively. Among the union territories, first place was held again by Chandigarh with 54.35 per cent.

RURAL HIGHER EDUCATION

The scheme of Rural Higher Education was launched in 1956 with the object of providing higher education, after the secondary stage, to the rural youth and inculcating in them a spirit of service to the community and sympathy for the rural way of life, besides training them for careers in the rural development programmes of the central and state governments. The National Council for Rural Higher Education advises the central government on the development of rural higher education. At present, 12 rural institutes are functioning at Coimbatore and Gandhigram (Tamil Nadu), Udaipur (Rajasthan), Birouli (Bihar), Bichpuri (Uttar Pradesh), Amravati, Gargoti and Wardha (Maharashtra), Rajpura (Punjab), Hanumanamatti (Karnataka), Tavanur (Kerala) and Indore (Madhya Pradesh).

TABLE 5.4
LITERACY[1]

State/Union Territory	Literates			Percentage of Literacy		
	Persons	Males	Females	Persons	Males	Females
INDIA	**16,13,77,780**	**11,20,14,845**	**4,93,62,935**	**29.45**	**39.45**	**18.70**
States						
Andhra Pradesh	1,06,89,665	73,03,297	33,86,368	24.57	33.18	15.75
Assam	41,16,771	28,29,242	12,87,529	28.15	36.68	18.63
Bihar	1,12,37,613	88,39,395	23,98,218	19.94	30.64	8.72
Gujarat	95,55,289	63,63,767	31,91,522	35.79	46.11	24.75
Haryana	26,99,179	20,05,424	6,93,755	26.89	37.29	14.89
Himachal Pradesh	11,05,825	7,63,192	3,42,633	31.96	43.19	20.23
Jammu & Kashmir	8,57,964	6,57,660	2,00,304	18.58	26.75	9.28
Karnataka	92,35,127	62,31,363	30,03,764	31.52	41.62	20.97
Kerala	1,28,98,072	70,54,096	58,43,976	60.42	66.62	54.31
Madhya Pradesh	92,23,081	70,16,649	2,206,432	22.14	32.70	10.92
Maharashtra	1,97,52,608	1,33,31,079	64,21,529	39.18	51.04	26.43
Manipur	3,53,090	2,49,383	1,03,707	32.91	46.04	19.53
Meghalaya	2,98,312	1,77,772	1,20,540	29.49	34.12	24.56
Nagaland	1,41,518	96,681	44,837	27.40	35.02	18.65
Orissa	57,45,399	42,27,806	15,17,593	26.18	38.29	13.92
Punjab	45,62,123	29,34,281	16,27,842	33.67	40.38	25.90
Rajasthan	49,14,293	38,75,435	10,38,858	19.07	28.74	8.46
Tamil Nadu	1,62,56,393	1,07,83,783	54,72,610	39.46	51.78	26.86
Tripura	4,82,082	3,22,017	1,60,065	30.98	40.20	21.19
Uttar Pradesh	1,91,73,970	1,48,12,311	43,61,659	21.70	31.50	10.55
West Bengal	1,47,11,739	1,00,31,891	46,79,848	33.20	42.81	22.42
Union Territories						
Andaman & Nicobar Islands	50,191	36,160	14,031	43.59	51.64	31.11
Arunachal Pradesh	52,791	44,776	8,015	11.29	17.82	3.71
Chandigarh	1,58,371	98,495	59,876	61.56	66.97	54.35
Dadra & Nagar Haveli	11,105	8,188	2,917	14.97	22.15	7.84
Delhi	23,01,605	14,38,268	8,63,337	56.61	63.71	47.75
Goa, Daman and Diu	3,83,864	2,34,178	1,49,686	44.75	54.31	35.09
Lakshadweep	13,889	9,081	4,808	43.66	56.48	30.56
Mizoram	1,78,793	1,03,324	75,469	53.79	60.49	46.71
Pondicherry	2,17,058	1,35,851	81,207	46.02	57.29	34.62

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[1] Inclusive of 0-4 age group.

RESEARCH AND TRAINING

The National Council of Educational Research and Training (NCERT), which was established in 1961, assists the union Ministry of Education and Social Welfare in the formulation and implementation of its policies in the field of school education. The Council works in co-operation with state education departments and universities and with other institutions for promoting school education. It also maintains close contacts with international organisations. The results of the investigations conducted by the Council are made available to the public through books, journals and other literature. The Council runs four regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore. The Council is developing new curricula and syllabi for classes I to XII in the new (10+2+3) pattern of education.

The Council also runs an educational technology centre at New Delhi. It was set up in 1972-73 for making fuller use in education of films, radio, television and new educational techniques such as video and audio recorders, and programmed learning. Educational technology cells have also been set up in Maharashtra, Orissa and Rajasthan.

Indian Institute of Advanced Study

The Indian Institute of Advanced Study in Simla was set up in 1965 as a centre for advanced study and research in the humanities and social sciences. Its aim is to serve as a small university where scholars, including foreign scholars, meet and discourse for their mutual benefit.

DEVELOPMENT OF HINDI

The central Ministry of Education runs several programmes for the enrichment and spread of Hindi. Among these are: (a) evolution and finalisation of Hindi terminology; (b) preparation of dictionaries; (c) preparation of linguaphone records, language lessons and tapes; and (d) publication of popular books in collaboration with private publishers. For the spread of Hindi, the activities include (i) rendering financial assistance to governments of non-Hindi speaking states for the training and appointment of Hindi teachers in their schools; (ii) encouraging the learning of Hindi on voluntary basis through correspondence courses; (iii) providing financial assistance to voluntary organisations in non-Hindi speaking states for holding Hindi teaching classes; (iv) giving awards to Hindi writers belonging to non-Hindi speaking states; and (v) spread of Hindi in countries abroad. Through the Kendriya Hindi Sansthan, Agra, the central government promotes the development of improved methodology for teaching Hindi to non-Hindi speaking students, preparation of suitable teaching materials, and development of improved teaching methods. Through the Central Hindi Directorate, the government runs programmes relating to the publication of Hindi books and their free distribution in non-Hindi speaking states.

MODERN INDIAN LANGUAGES

Under the scheme for the development of modern Indian languages, the central government give financial assistance to voluntary organisations for bringing out publications like encyclopaedias, dictionaries, books of knowledge and books of scientific interest. Grants are given for holding literary conferences, seminars and exhibitions for the development of Indian languages. Assistance is also given by way of purchasing copies of printed publications. State governments are given special help for the production of university-level books in regional languages. A *Taraqui-e-Urdu* Board has been set up for the production of educative literature in Urdu. A scheme for the publication of such books in Sindhi is also in operation.

The government also provide facilities for the study of languages other than the mother-tongue. For this, the Central Institute of Indian Languages, Mysore, develops improved teaching methodology, prepares teaching materials and trains second language teachers at the Regional Language Centres of the Institute. The Institute also conducts research necessary for this purpose. The study of tribal languages is one of its important functions.

Foreign Languages Institute

The Central Institute of English and Foreign Languages, Hyderabad, trains teachers in the teaching of English and foreign languages, development of teaching methodology and of teaching materials for use by Indian teachers and students of these languages. A regional centre has been set up at Shillong for accelerating its activities in the eastern region. From July 1973, the Institute is deemed to be a university.

YOUTH SERVICES

The main objectives of the central government's youth policy are to provide opportunities to the young people to make constructive contribution to society, fulfil youth aspirations by providing avenues for young people to be actively involved in the national mainstream and enable them to contribute fruitfully in the task of national reconstruction.

Nehru Yuvak Kendras

To mobilise student and non-student youth for constructive nation building activities, youth centres known as Nehru Yuvak Kendras have been established at district headquarters other than metropolitan areas. The activities of these centres include informal education for young people in the age group 15-25 and their participation in creative activities, development of competitive sports, physical education, encouragement of talent in the field of sports, particularly in the rural areas and community service involving youth participation in eradication of illiteracy, health, education and sanitation programmes.

National Service Scheme

The National Service Scheme (NSS), launched in 1969, aims at providing under-graduate students with opportunities for meaningful social service benefiting the community in a variety of fields. Such activities include youth participation in organising literacy classes, constructive development work with a potential of creating community assets, youth involvement in relief operations, slum clearance and organisation of mobile hospital service.

SPORTS AND GAMES

In the field of sports and games, the policy is to broad-base the scope of selection and training of potential talent and sportsmen and to lay the foundation of a mass base for participation of young people through competitive sports.

All India Council of Sports

The All India Council of Sports advises the central government on matters relating to sports, games and physical education. In consultation with the Council, the government provide financial assistance to the National Sports Organisation for purchase of equipment, visits of Indian sports teams abroad and *vice versa*, organisation of national championships and establishment of rural sports centres.

National Sports Organisation

The National Sports Organisation aims at promoting excellence among college students in selected fields of sports and games. To achieve this, the Organisation provides physical facilities in the universities. It also arranges coaches, organises coaching camps and recommends students for sports talent scholarships. The scheme is managed by the Inter-University Sports Board and the University Grants Commission.

National Institutes of Sports

There are two national institutes for the development of physical education and sports in the country. The Netaji Subhas National Institute of Sports, Patiala, conducts courses in different games to train qualified coaches. The Institute also organises regional coaching centres in different states and provides trained coaches at each of the Nehru Yuvak Kendras for spotting talented sportsmen in rural areas and giving them specialised training. It also conducts coaching and training camps for preparing national teams for participation in international meets.

The Lakshmibai National College of Physical Education, Gwalior, provides teacher-training facilities for three-year degree course as well as for post-graduate studies and research in physical education and recreation. It has so far trained 2,045 coaches in 13 different games and sports. The College also operates the National Physical Efficiency Drive which was launched in the Second Five Year Plan to create a general awareness among the people of the need for better standard of physical efficiency.

National Fitness Corps Programme

The National Fitness Corps programme is the only integrated multipurpose programme of physical education at the middle, high and higher secondary school stage. The programme is being implemented by state governments and union territory administrations.

6 CULTURAL ACTIVITIES

Preservation of the cultural heritage of the country, inculcation of art consciousness among the people and promotion of high standards in the performing and creative arts are some of the objectives of the State policy. In keeping with this, the central and state governments strive for the promotion of art and culture through national and regional academies of art, dance, drama, music and letters. These institutions and the Department of Culture at the centre are helped in their objective by the media of mass communication and voluntary agencies. Apart from this, some eminent persons associated with the fine arts are, from time to time, nominated by the President of India to the Rajya Sabha in recognition of their standing in these fields.

VISUAL ARTS

Painting

Important traditions of Indian painting include the murals of Ajanta, Ellora and other frescoes, the Buddhist palm leaf manuscripts, the Jain texts, the Deccan, the Mughal, the Rajput and the Kangra schools. The Bengal renaissance and the modern trends bring it to the present. While the modern trends in Europe and elsewhere have influenced modern Indian painting, Indian folk art and themes have also been successfully revived and accepted.

Architecture and Sculpture

Till the advent of modern trends, architecture and sculpture in India were inspired mainly through the religious motif. The best examples are the temples, mosques, fortresses, palaces and other monuments which dot the Indian landscape. Massive buildings that have come up after Independence and the city of Chandigarh symbolise the beginning of the modern period of Indian architecture. Contemporary Indian sculptors have contributed to a new awareness of sculpture which suffered a hiatus for a few centuries.

Handicrafts

From coarse carpets to finest muslins, graceful cotton and exquisite silk saris, embroidered shawls, breathtaking creations in metals, unglazed and glazed pottery, fabulous jewellery—heavy tribal or costume or filigree—rugged or delicate woodwork, dolls and puppets are but a few items of the rich and varied expertise of Indian craftsmen. Their main inspiration is tradition handed down the generations. This heritage of tribal and village activity is sustained by providing economic support to the artisans and export promotion. Every year, the best among the craftsmen are honoured by the nation as master craftsmen.

Lalit Kala Akademi

To promote the understanding of Indian art both within and outside the country, the Government of India established the Lalit Kala Akademi (Academy of Arts) in 1954. The Akademi strives to promote this objective through exhibitions and publications. Every year it holds a national exhibition and every three years, the Triennale-India, an international exhibition. The Akademi has brought out a series of monographs on ancient Indian art and published the results of new research in Indian arts in its journals. It also releases large colour reproductions of paintings and has undertaken a programme to copy frescoes and murals in caves, temples, forts and palaces which are in danger of being lost.

The Akademi organises artists' camps, seminars and lectures and gives grants to recognised art organisations in the country. It honours eminent artists by making them Fellows. So far, 12 persons have been conferred Fellowships. Awards are given to artists on the occasion of the national exhibition.[1]

National Gallery of Modern Art

The National Gallery of Modern Art, which was opened in 1954, now has a collection of over 2,800 works of art, representing various styles spanning over a century. Among the distinguished Indian artists whose works are represented at the gallery are: Rabindranath Tagore, Abanindranath Tagore, Gaganendranath Tagore, Ravi Verma, Amrita Sher-Gil, N.S. Bendre, Satish Gujral, Akbar Padamsee, J. Swaminathan, Nandlal Bose, Jaimini Roy, Sudhir Khastagir, Mohan Samant, D.P. Roy Chowdhury and M.F. Husain.

The collection also includes sculptures, graphics and paintings by international modern artists like Jacob Epstein, Giorgio de Chirico, Sonia Delaunay, A. Tapies, Se Duk Lee, D.C. Daja and Petar Lubarda.

National Institute of Design

This institute was set up in 1961 at Ahmadabad by the central government in co-operation with the government of Gujarat and the Ford Foundation. It provides service, training and research in the field of designs in graphic arts, architecture and industry.

PERFORMING ARTS

Music

There are two main schools of classical music, namely, Hindustani and Karnatak. Both schools continue to survive mainly through an oral tradition being passed on by the teacher to the disciple and this has led to the existence of family traditions called the *gharanas* and the *sampradayas*.

In recent years there has been a great revival of interest in folk music which has been brought to the stage in cities. Growing in popularity is another category of music which has come to be known as light music.

The patronage to music is both state-supported and popular. The Sangeet Natak Akademi (Academy of Music, Dance and Drama), All India Radio, films, voluntary organisations and cultural associations are the main agencies that have brought about a nation-wide awareness and appreciation of music.

Dance

Dancing in India has an unbroken tradition of over 2,000 years. Its themes come from mythology, legend and classical literature. There are two main divisions of Indian dance, namely, classical and folk. Under classical are included forms which are based on ancient technical texts and have rigid rules governing their technique. Among the leading forms of classical dance which are today performed all over India are Bharata Natyam, Kathakali, Kathak, Manipuri, Odissi and Kuchipudi. Bharata Natyam belongs to Tamil Nadu and this is the most ancient amongst the classical styles. Kathakali, which comes from Kerala, is a dance-drama of epic grandeur. Kathak is the principal classical dance of North India and was revitalized as a result of the fusion of Mughal influence with Indian culture. Manipuri belongs to Manipur and has a delicate lyrical style. Odissi, from Orissa, was for a long time practised as a temple art. Kuchipudi is a form of dance-drama in Andhra Pradesh, the themes of which are taken from the epics, the *Ramayana* and the *Mahabharata*. The folk dances of India, which include tribal dances as well, are of numerous styles.

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[1] For 1973 awards, see Appendices.

Both the classical and folk dances of India owe their present popularity to institutions like the Sangeet Natak Akademi and training schools and cultural organisations in different parts of the country.

Theatre

Theatre in India is as old as her music and dance. There are the classical theatre, which survives only in a few parts of the country, and the folk theatre, which can be seen in its regional variants in practically every linguistic region of the country. There is also the professional theatre, which is mainly urban oriented.

In addition, there are several semi-professional and amateur groups active in many of the large cities, performing plays in English and Indian languages.

Sangeet Natak Akademi

The Sangeet Natak Akademi (Academy of Music, Dance and Drama), which was set up in 1953, fosters the development of dance, drama and music. As part of its co-ordinating and promotional activities, it holds competitions, seminars and music festivals, presents awards to outstanding performing artistes, gives grants to institutions of music, dance and drama and extends financial help to traditional teachers and scholarships to students. It subsidises or publishes research work on the performing arts.

In view of the many theatrical, musical and dance forms prevalent all over the country, the Akademi has set up a special unit for surveying and documenting the various forms. Its disc and tape library is the largest collection of Indian classical, folk and tribal music.

The Akademi has set up three national institutions for imparting training in the Kathak and Manipuri schools of dance and drama, namely, Kathak Kendra, New Delhi, Jawaharlal Nehru Manipur Dance Academy, Imphal, and the National School of Drama and Asian Theatre Institute, New Delhi.

The Akademi operates a scheme under which prizes are awarded to books in various modern Indian languages and English on music, dance and drama. It honours outstanding performing artistes by making them Fellows and presents annual awards.[1] It holds annually a theatre festival in which groups from various parts of the country exhibit their talents.

It has a gallery of musical instruments, 'Asavari', where over 400 classical, folk and tribal musical instruments are displayed. 'Yavanika', another gallery, houses a representative collection of fascinating masks, puppets and folk theatre costumes.

Broadcasting

All India Radio (AIR) is the biggest single agency which has brought about an awareness and appreciation of the Indian music—classical, folk, tribal, vocal, instrumental or film—and drama to almost every home in the country. On an average, music constitutes over 40 per cent of the total broadcasting time.

The major programmes through which AIR propagates music are the weekly national programme of music; the weekly programme of classical music by young artistes; the monthly national programme of regional music (light and folk); the annual music competition to discover young talent and the week-long annual music festival called the Radio Sangeet Sammelan and the organisation of Vadya Vrinda

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[1] For 1973 awards, see Appendices.

(orchestra). The all-India Vividh Bharati service of AIR broadcasts popular music. Live broadcasts of major musical festivals held in different parts of the country are also put out by AIR. Through overseas transmissions, it seeks to satisfy the cultural needs of Indian nationals living abroad. The musical archives of AIR are among the most important collections in the country.

The main programme in the field of drama is the national programme of plays. Once a month, an outstanding play in one of the Indian languages is broadcast by the regional stations in their respective languages.

Western music is broadcast by a number of radio stations and the transcription and exchange programmes bring to Indian listeners excerpts from the performing arts from many parts of the world.

LITERATURE

Rediscovery of ancient literature and creation of modern literature in the major Indian languages and English are happening simultaneously in present day India. A large number of literary periodicals and magazines, literary institutions and All India Radio have given an impetus to the growth of modern Indian literary activity.

Sahitya Akademi

The Sahitya Akademi was set up in 1954 at New Delhi for the development of Indian letters. Some of the main functions of the Akademi are: translation of literary works from one Indian language to another and from non-Indian to Indian languages; publication of works on literary history and criticism, books of reference like bibliographies and biographies and works in Devanagari and other Indian scripts and popularisation of the study of literature amongst the people. The Akademi has regional offices at Calcutta and Madras.

An important publication of the Akademi is the *National Bibliography of Indian Literature* (1901-1953), covering books of literary merit in all the major Indian languages and English published in India or written by Indian authors. So far, three volumes of the *Bibliography* have been brought out covering English and all the major Indian languages except Sindhi, Tamil, Telugu and Urdu. The Akademi's publications on 31 March 1974 totalled 729.

The Akademi honours eminent men and women of letters by electing them Fellows. It awards prizes to works of outstanding excellence in English and major Indian languages.[1]

BOOKS

India is one of the leading book publishing countries in the world. There are about 200 large, 2,000 medium and 8,000 small publishers in the country of whom only about 100 large, 200 medium and 2,700 small publishers are active. More than 13,600 titles were published in 1971. During 1972-73, periodicals and journals valued at Rs 1.54 crores were exported to 82 countries, while imports were valued at Rs 6.8 crores.

National Book Development Board

The National Book Development Board, which was set up in 1967, is the principal advisory body for the development of the book industry and trade in the context of the overall requirements of the country. The Board was reorganised in 1970 and has on it representatives of different sectors of book industry, namely, publishers, authors, printers and booksellers as well as various governmental and non-governmental agencies, dealing with the implementation of book programmes.

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[1] For 1973 awards, see Appendices.

National Book Trust

The National Book Trust, set up in 1957, produces, and also encourages the production of good literature and makes it available at low prices to libraries, educational institutions and the public. Up to 31 March 1974, it had released more than 1,100 titles in English and various Indian languages.

Since 1970, the Trust has been subsidising the publication of university level books in English by Indian authors. Under the 'Aadan Pradan' series, it is publishing selected books from each of the principal Indian languages in all the others. It also organises annual national book fairs, regional book exhibitions and writers' camps.

Publications Division

The Publications Division of the union Ministry of Information and Broadcasting produces books, pamphlets, albums and journals to provide the lay reader with information regarding the diverse aspects of national life and culture and the teachings of national leaders. Till 31 March 1974, it had released nearly 4,700 books, pamphlets and pictorial albums in English, Hindi and other Indian languages.

A major project of the Division is the publication of the *Collected Works of Mahatma Gandhi.* So far, 53 volumes each in English and Hindi have been published. Nearly 80 volumes are planned to be brought out.

Other Agencies

An important agency of the central government is the Department of Tourism which disseminates information on aspects of Indian culture to people abroad. A large number of titles are also brought out by private agencies. The government provides assistance to voluntary organisations and cultural institutions in publishing books.

Books for Children

Books for children are brought out, among others, by the Children's Book Trust, the National Book Trust, the Publications Division and the National Council of Educational Research and Training.

Copyright

The Copyright Act, 1957, which amended and consolidated all previous laws on the subject, came into force on 21 January 1958. A Copyright Board with powers of adjudication and a Copyright Office have been set up under this Act. During May 1973-April 1974, the Copyright Office registered 11,098 artistic works, 6,641 literary works and 11 cinematograph films. Protection under the Act has also been extended to the works by authors in more than 75 countries.

Though India is a signatory to both the Universal Copyright Convention and the Berne Convention on Copyright, she has still to ratify both the conventions.

LIBRARIES

There are more than 10,000 libraries of all descriptions in the country, including eight libraries attached to institutions declared by Parliament of national importance and over 200 specialised libraries attached to the various departments of the central government.

Though the work relating to libraries is a state subject, the central Department of Culture administers a few central libraries and gives financial assistance to voluntary organisations running public libraries. To ensure regulated development of public libraries, legislation has been enacted by the governments of Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu.

Copyright Libraries

Under the Delivery of Books and Newspapers (Public Libraries) Act, 1954, the 'copyright' libraries are entitled to receive a copy of every new book and magazine published in the country. There are three such libraries, namely, National Library, Calcutta (14.5 lakh volumes), Central Library, Bombay (6 lakh volumes) and Connemara Library, Madras (2.5 lakh volumes).

Manuscript Libraries

The manuscript libraries and the libraries of oriental learning which are largely financed by the central government are spread over the country. In addition, there are nearly 100 other collections belonging to state governments and private agencies which have hundreds of thousands of manuscripts.

Some of the important manuscript libraries are: Saraswati Mahal Library, Thanjavur, Tamil Nadu; Government Oriental Manuscript Library, Madras; Khuda Baksh Oriental Public Library, Patna; Raza Library, Rampur, Uttar Pradesh; Oriental Research Libraries at Poona and Vadodara; Sanskrit University Library, Varanasi and Visheshwaranand Vedic Research Institute Library, Hoshiarpur. The Khuda Baksh Oriental Public Library has been declared as an institution of national importance and the central government has decided to recognise the Raza Library also as an institution of national importance.

Other Libraries

There are also specialised libraries providing facilities to researchers. Prominent among them are at the Indian Council of World Affairs, New Delhi, Indian Statistical Institute, Calcutta, Gokhale Institute, Poona, Theosophical Society, Madras, National Council of Applied Economic Research, Delhi and the Indian Institute of Public Administration, Delhi.

Some other leading libraries are the Delhi Public Library (5 lakh volumes) and the Central Secretariat Library, New Delhi (4 lakh volumes). Apart from these, some of the bigger universities also have sizeable collections.

Gazetteers

A Central Gazetteers Unit in the union Ministry of Education and Social Welfare edits the central gazetteer and plans and co-ordinates the work of the state and district gazetteers. So far, two volumes of the Gazetteer of India, namely, 'Country and People' and 'History and Culture' have been released and more than 200 of the 337 district gazetteers have been revised. Also, 'Who's Who of Indian Martyrs' has been published in three volumes. The first volume includes patriots who were hanged or killed in the Indian freedom struggle after 1857 till 1947 and the second contains the life sketches of those patriots who sacrificed their lives outside the territory of British India, those who lost their lives in the movements for the establishment of responsible government in the former princely states and martyrs of the liberation movements in the former Portuguese and French possessions in India. The third volume deals with the 1857 martyrs.

FESTIVALS

Indian festivals are as varied in origin as they are large in number. Some of them celebrate the birthdays of national heroes and some others mark the change of seasons or ripening of harvests. Yet others have their origin in religion and in myths and legends. The main festivals of all the important communities in the country are also observed as public holidays. Some of the main festivals common to all India are: Diwali, Dussehra, Holi, Shivaratri, Janmashtami, Ram Navami, Muharram[1], Id-ul-Zuha, Id-ul-Fitr, Id-i-Milad, Christmas, Good Friday, Vaisakhi,, Gurupurabs, Buddha Jayanti, Mahavir Jayanti and Jamshed Navaroz. The Republic Day on 26 January, the Independence Day on 15 August and the birthday of Mahatma Gandhi on 2 October are observed as national holidays.

ARCHAEOLOGY

All ancient and historical monuments of national importance are the responsibility of the central government, while other ancient and historical monuments are maintained by state governments.

The Archaeological Survey of India (ASI), New Delhi, which was founded in 1861, is concerned with the exploration and excavation of ancient sites and their maintenance and publication of multiform records and reviews. It also conducts a post-graduate diploma course in archaeology.

The ASI has a library which is one of the oldest in the country. It contains rare material not only on India but also on south-east Asia. There is a separate library of photographs.

Besides ASI, almost all the state governments have their own archaeological surveys or departments. University departments working in the field of archaeology carry out their research in co-operation with the state surveys and ASI. A Central Advisory Board of Archaeology co-ordinates the activities of the central and state archaeological surveys and the university research programmes in archaeology.

Museums

The first museum in the country was set up at Calcutta in 1814. At present, there are over 200 museums in India.

The central government finances and administers a few central museums of art, archaeology, natural history, geology and commemorative and crafts museums, and, through the Central Advisory Board of Museums, co-ordinates the activities of museums maintained by state governments, universities and private organisations.

Some of the important museums are: Indian Museum, Victoria Memorial Hall, Asutosh Museum, Calcutta; National Museum, National Gallery of Modern Art, Nehru Memorial Museum and Library, New Delhi; Salar Jung Museum, Hyderabad; Prince of Wales Museum, Bombay; Government Museum, Madras and the University Museum, Varanasi. There are several archaeological museums at ancient sites like Konarak, Nagarjunakonda, Nalanda, Sanchi and Saranath and museums of handicrafts and textile designs and children's museums. A few scientific and technological museums have also been established.

Training facilities for museum personnel at the diploma level are at present provided by the Universities of Aligarh, Baroda, Calcutta and Varanasi and the Birla Institute of Technology, Pilani. In addition, the central government organises museum camps for in-service training and awards fellowships for training in India and abroad.

INTERNATIONAL CULTURAL RELATIONS

Cultural Agreements

India has cultural agreements with 30 countries. They are: Afghanistan, Arab Republic of Egypt, Australia, Bangladesh, Belgium, Brazil, Bulgaria, Czechoslovakia, Federal Republic of Germany,

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[1] Muharram, though not a festival, is included among festivals of India because of its observance with piety and pageantry by a large number of people all over India.

France, German Democratic Republic, Greece, Hungary, Indonesia, Iran, Iraq, Japan, Kuwait, Mauritius, Mongolia, Norway, People's Democratic Republic of Yemen, Philippines, Poland, Rumania, Senegal, Tunisia, Turkey, USSR and Yugoslavia. Closer cultural relations with some of these countries have found a practical shape in the form of cultural exchange programmes. So far, India has entered into cultural exchange programmes with 16 countries, namely, Afghanistan, Arab Republic of Egypt, Bangladesh, Belgium, Bulgaria, Czechoslovakia, Federal Republic of Germany, France, German Democratic Republic, Hungary, Iran, Mongolia, Poland, Rumania, USSR and Yugoslavia.

Auroville

While the cultural co-operation activities rest mainly with the union Ministry of Education and Social Welfare, international cultural co-operation programmes are also executed through the Indian National Commission for Co-operation with Unesco. A programme now under way with assistance from the Commission is the 'Auroville' project of Sri Aurobindo Society, Pondicherry, which aims at bringing together the values and ideals of different cultures.

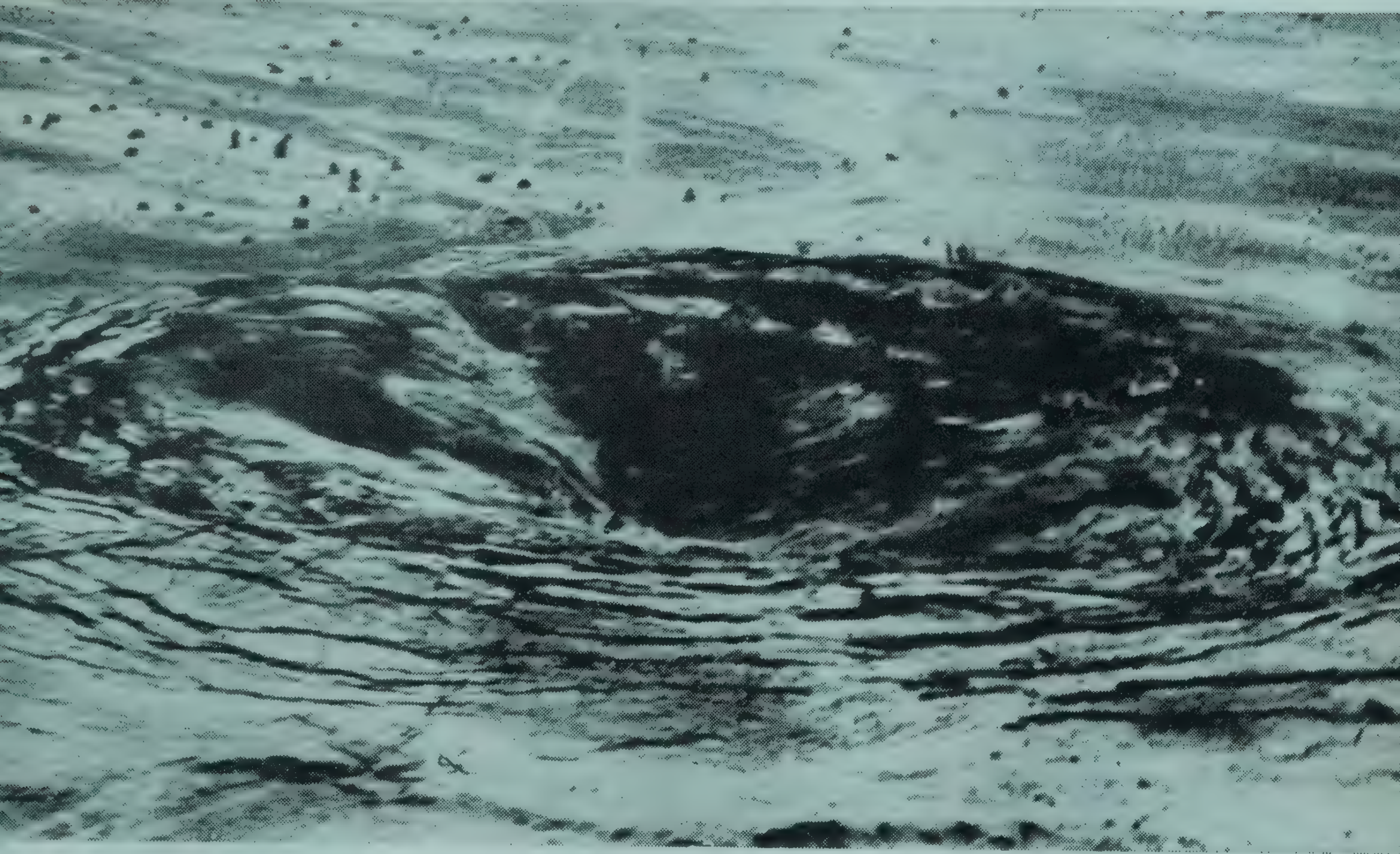
Indian Council for Cultural Relations

The Indian Council for Cultural Relations, New Delhi, established in 1950, strives to promote and strengthen cultural relations and mutual understanding between India and other countries. The Council has regional offices in Bombay, Calcutta and Madras and cultural centres in Fiji, Guyana and the United States (San Fransisco).

The main functions of the Council are reciprocal development of studies in Indian and foreign universities, publications in Indian and foreign languages on different aspects of culture of India, exchange of cultural material with libraries and museums abroad, exchange of cultural delegations, scholars and artistes and organisation of lectures, seminars and conferences. It looks after the welfare of overseas students and for this purpose runs international student hostels at Bombay, Calcutta, Delhi and Madras.

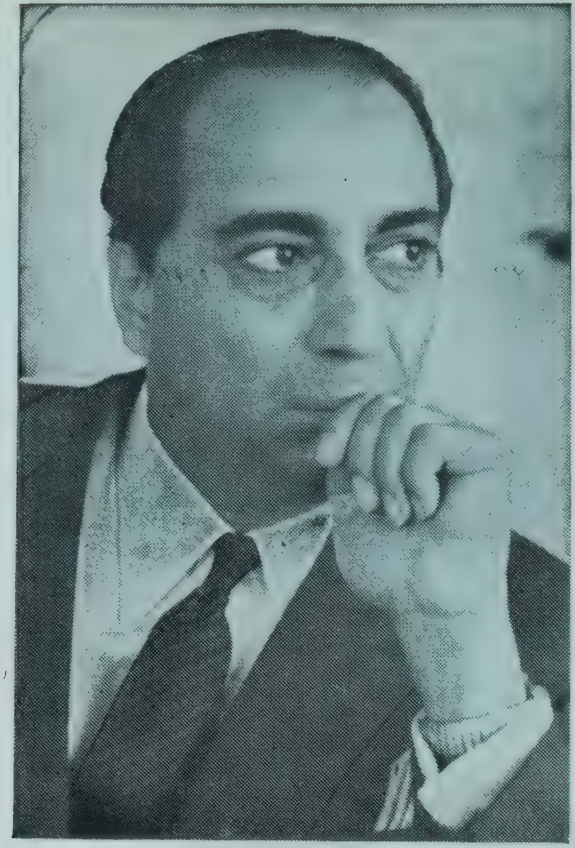
The Council administers the Jawaharlal Nehru Award for the Promotion of Peace and International Understanding, instituted by the central government in 1964. So far, U Thant, the late Dr Martin Luther King, Khan Abdul Ghaffar Khan, Yehudi Menuhin, Mother Teresa, Dr Kenneth D. Kaunda, Josip Broz Tito, Andre Malraux and Julius Nyerere have been given this award.

HARNESSING NUCLEAR TECHNOLOGY



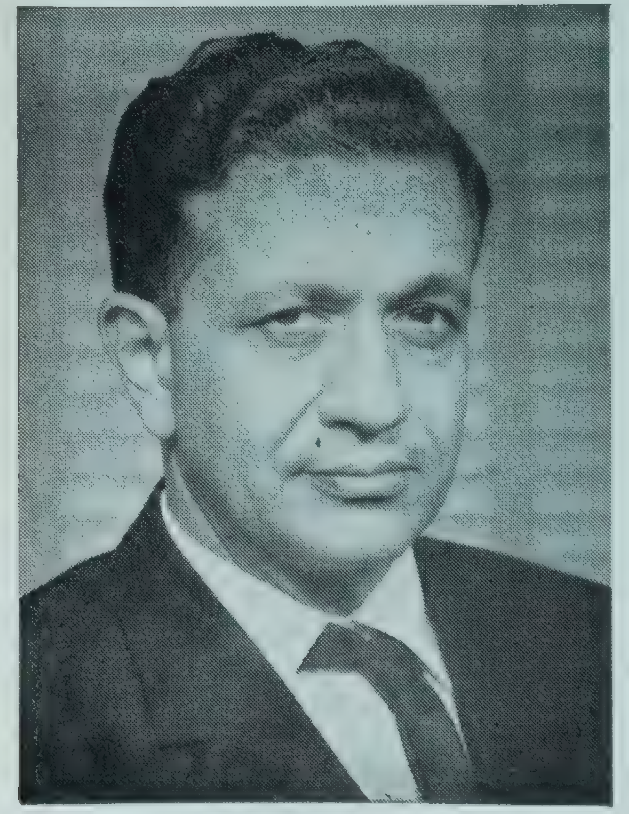
18 May 1974. India carried out an underground nuclear experiment as part of her programme to keep abreast of developments in this technology and its application for peaceful purposes. (Above) A view of the crater that was formed by the explosion.

(Below) Owing to the almost contained nature of the explosion, scientists were able to visit the crater soon after the blast for gathering preliminary data.

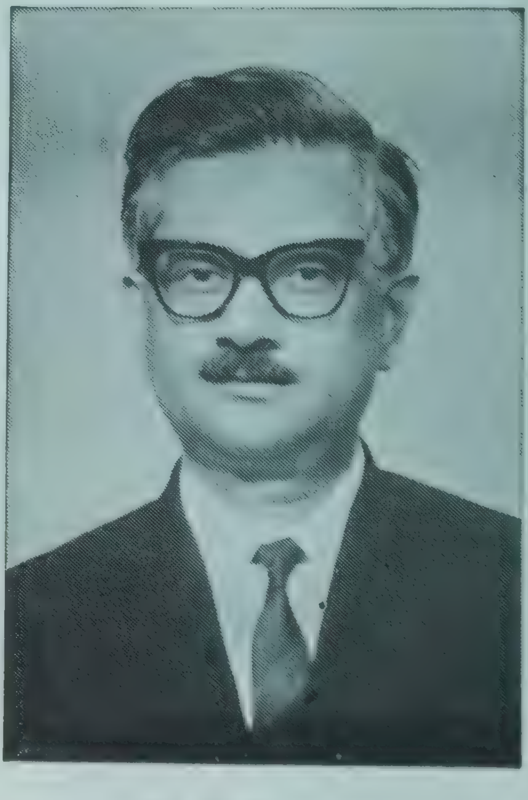


Dr H.J. Bhabha

Dr V.A. Sarabhai



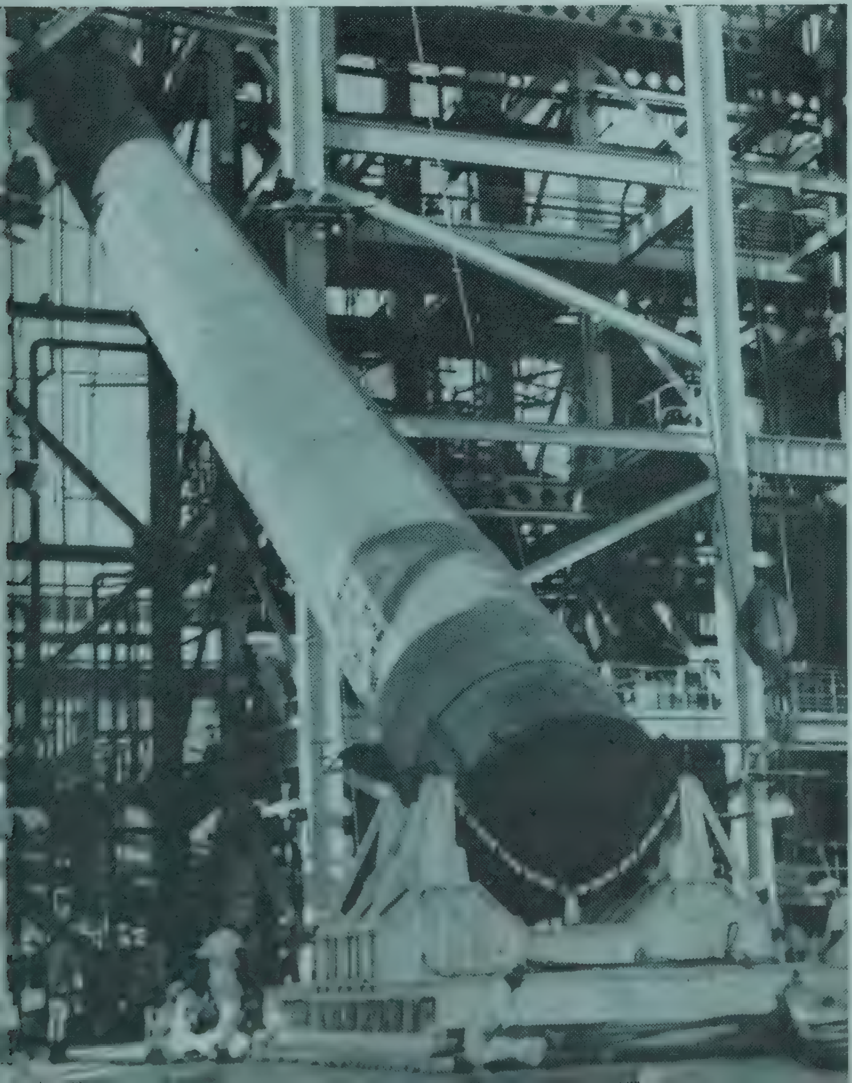
Dr H.N. Sethna



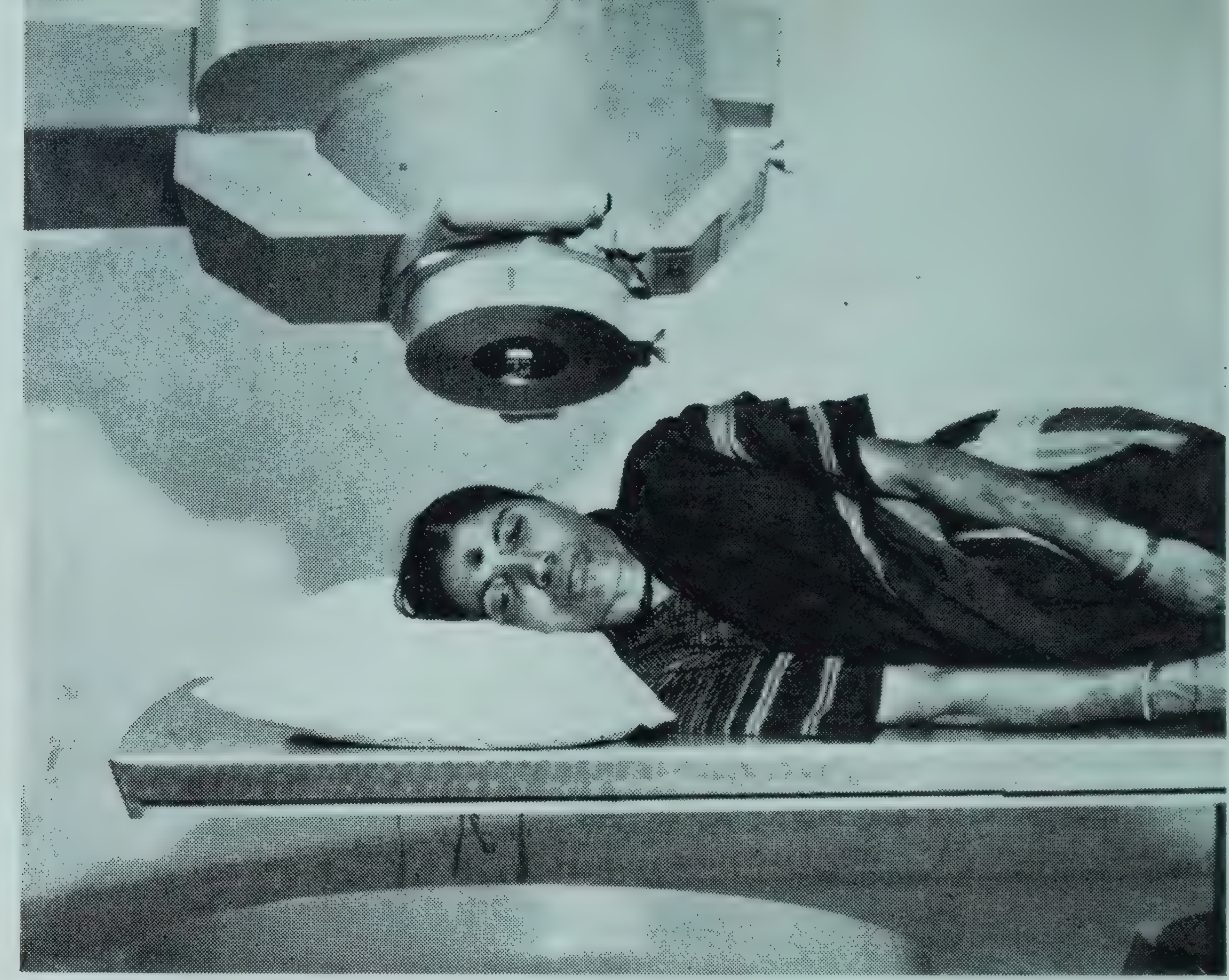
Dr R. Ramanna

India today has a number of scientists engaged in nuclear research. The foundation of this was laid by late Dr Bhabha, first Chairman of AEC, who was succeeded by late Dr Sarabhai. Dr Sethna is the present Chairman of AEC and Dr Ramanna, Director of Bhabha Atomic Research Centre.

Atomic minerals being collected at Manavalakurichi beach, Tamil Nadu



Nuclear grade heavy water is produced at Nangal. To meet future demand, four plants are being built at Kota, Baroda, Tuticorin and Talcher.
Erection of the 530-tonne distillation tower for the Baroda plant in progress. This is the heaviest single piece of equipment handled in the country so far.



India has developed varied uses for radio-isotopes and a wide range of equipment and facilities needed for their application in different fields.
(Above) A cancer patient being treated in a cobalt-60 teletherapy unit at the Tata Memorial Centre, Bombay

India has two nuclear power stations at Tarapur and Kota. The third is being constructed at Kalpakkam. The fourth will be at Narora.

A view of the Kalpakkam unit

7 SCIENTIFIC RESEARCH

The number of national laboratories has grown from 2 in 1947 to the present 30. There is also a network of more than 200 other laboratories and research institutions. Research is done, besides, in universities. The spending on scientific research has gone up from Rs 4.7 crores in 1950-51 to well over Rs 250 crores in 1973-74. The S&T component of the Fifth Plan, as envisaged in the draft, both in the public and private sectors, will be about Rs 2,390 crores. The electronics component of this S&T plan is to generate a total production potential of Rs 2,300 crores during the Fifth Plan period and provide employment to nearly 3.6 lakh people. These are some indicators of the expanse of science in India and the importance given to scientific research.

Organisationally, despite continuous efforts to reduce the number of co-ordinating points, several bodies have come into being because scientific research has become increasingly diversified and complex. The Atomic Energy Commission and the Department of Atomic Energy are in existence for more than two decades. Similarly, the Council of Scientific and Industrial Research and the Defence Research and Development Organisation have also been functioning for a number of years. More recently, a National Committee on Science and Technology (NCST), backed by an executive central Department of Science and Technology, came into being in 1971. The Space Commission, backed by a Department of Space, was set up in 1972. A little earlier, an Electronics Commission, with a central Department of Electronics was created.

Agricultural research, with its long history in India, has now been provided a department through the setting up, towards the end of 1973, of a Department of Agricultural Research and Education. The Indian Council of Medical Research, started in 1911, has under its control several institutions doing studies not only in diseases and treatment but in various other related branches of fundamental research. Departmental research in aviation, rail and road, forestry, water and power and other fields is conducted by organisations within the administrative control of the concerned ministries and departments.

SCIENCE POLICY

The Government of India's science policy is guided by a resolution adopted by Parliament as early as March 1958. Among its objectives is to secure for the people of the country the benefits from the acquisition of scientific knowledge and its application. The resolution also set out some other aims like encouraging individual initiative for the acquisition and dissemination of knowledge as well as the discovery of new knowledge, fostering programmes to train scientific and technical personnel to fulfil the needs in the fields of science and education, agriculture, industry and defence and ensuring an adequate supply of scientists and recognising their work. All this would help in fostering and sustaining the cultivation of science and scientific research in all its aspects, namely, pure, applied and educational.

EXPENDITURE

Tables 7.1 and 7.2 give an idea of spending on scientific research and development sector-wise and organisation-wise.

TABLE 7.1 EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT

(*Rs crores*)

	1958-59	1965-66	1972-73	1973-74[1]
Central Government	27.66	79.12	195.60	209.64
State Governments	1.00	3.51	10.76	12.87
Private Sector	0.15	2.43	27.82	32.96
TOTAL	28.81	85.06	234.18	255.47

[1] Provisional.

TABLE 7.2 EXPENDITURE OF MAJOR ORGANISATIONS

(*Rs crores*)

Name of the Organisation	1972-73	1973-74[1]
Department of Atomic Energy	25.16	22.63
Department of Space	18.23	19.09
Council of Scientific and Industrial Research	24.66	25.01
Defence Research and Development Organisation	25.35	31.51
Indian Council of Medical Research	2.40	3.03
Indian Council of Agricultural Research	29.91	27.25

[1] Provisional.

NCST

The National Committee on Science and Technology (NCST) is the apex body to advise and assist the government on all matters relating to promotion of science and technology.

The Science and Technology Plan prepared by NCST in 1973-74 will have a long range impact on development in a number of areas like sources of energy, tapping of natural and marine resources, problems relating to metallurgy, special materials, machine tools, chemical and heavy industries, wastes, housing, urbanisation and building technology, health, transport and agriculture. The plan also has suggestions in the areas of atomic energy, space, electronics, information and support to educational extension. Its main objective is self-reliance and, therefore, its accent is on development of skills related to the combination of process/project technology and engineering, design and fabrication. While the S&T component of the Fifth Plan in the central sector will be Rs 1,033.29 crores, there will be a non-Plan spending of another Rs 800 crores besides outlay by state governments totalling Rs 250 crores and private sector spending on R&D of the order of Rs 300 crores, together making a total of more than Rs 2,380 crores.

DST

The Department of Science and Technology (DST), which came into being in 1971, functions as the executive arm of the National Committee on Science and Technology. It co-ordinates all S&T activity in the country including planning, provision of grants to research institutions and holding ministerial responsibilities of such autonomous bodies as the National Research Development Corporation (NRDC) and the Council of Scientific and Industrial Research (CSIR), besides looking after bilateral agreements on science and technology with other countries. The DST and the Department of Industrial Development have set up 17 research and development units to help small industries. Import of equipment and raw material for R&D is regulated through a joint committee of connected governmental bodies under the chairmanship of the Secretary, NCST. The DST has also administrative responsibility for the Survey of India, the National Atlas Organisation and the Botanical and Zoological Surveys besides a number of new projects, like national remote sensing agency, ocean science and technology agency, electronic components unit, new fibres and composites, cryogenics corporation and instrumentation and machinery development corporation. Other projects identified by the Department include technology leading to new energy sources, regional centres for sophisticated instrumentation and the National History Museum.

Environment

A major research work in ecology under UNESCO's programme 'Man and Biosphere', has been entrusted to the National Committee on Environmental Planning and Co-ordination, set up in 1972. It is supported by an office of environmental planning and co-ordination under the Department of Science and Technology with specialists in various aspects of the subject. The Committee has a number of national research projects for the study of the dynamics of forest ecosystems, including sanctuaries, national parks and forest preservation plots, cultivated lands, arid zones, rivers, lakes and estuaries. For the first time, R&D proposals on environmental improvement have been incorporated in the Fifth Plan.

National Surveys and Other Institutions

The Survey of India, Dehra Dun, with a photo interpretation unit at Dehra Dun and a research and development wing at Hyderabad, carries out topographical surveys and its work in 1973-74 included surveys connected with irrigation, power, communication, flood control, water supply, town and country planning, forests and tourism; the National Atlas Organisation, Calcutta, in 1973-74 brought out a tourist atlas besides six other maps and concluded geo-economic survey of the upper Gangetic flood-plain area; the Botanical Survey of India, Calcutta, which has four main centres in Calcutta (the Indian Botanical Garden, the Central National Herbarium, the Industrial Section of the Indian Museum and the Central Botanical Laboratory) and seven regional circles at Allahabad, Coimbatore, Dehra Dun, Jodhpur, Poona, Port Blair and Shillong undertakes surveys and helps the Indian Museum conduct studies on economic plants; and the Zoological Survey of India, Calcutta, with its regional stations at Dehra Dun, Jabalpur, Jodhpur, Madras, Patna, Poona, Shillong and Solan does intensive surveys of fauna and observes and identifies different animal species in different areas with stress on field ecology.

There are several independent institutions doing research with help from the Department of Science and Technology. These include the Indian Association for the Cultivation of Science, Calcutta; Bose Research Institute, Calcutta; Raman Research Institute, Bangalore; Birbal Sahni Institute for Palaeobotany, Lucknow; and the Wadia Institute of Himalayan Zoology, Delhi. Grants are also given to the Indian National Science Academy, New Delhi, and the Indian National Science Congress Association, Calcutta.

NUCLEAR RESEARCH

The Atomic Energy Commission set up in 1948 has its headquarters in Bombay. Its chairman is also Secretary to the Government of India in the Department of Atomic Energy, which, with its headquarters in New Delhi, was created in 1954. The Commission and the Department carry out the government policy of using atomic energy for development purposes such as power generation, agriculture, industry and medicine.

The Atomic Energy Commission carried out on 18 May 1974 an underground nuclear experiment in western India, adopting the fission technique, at a depth of more than 100 metres. It was entirely an Indian effort. Even the plutonium used was produced in India. Its objectives included a study of rock dynamics and the use to which such implosions could be used for building canals and reservoirs and for oil exploration.

Bhabha Atomic Research Centre

The principal centre for nuclear research is the Bhabha Atomic Research Centre (BARC) at Trombay near Bombay. It has four reactors: 'Apsara'—a 1 mw swimming pool reactor, 'Cirus'—a 40 mw Canada-India reactor, 'Zerlina'—a zero energy thermal reactor and 'Purnima'—a zero energy fast reactor. The supporting facilities at Trombay include a uranium metal plant, a fuel element fabrication plant, a heavy water reconcentration plant, a plutonium plant, a 5.5 MeV Van-de-Graaff accelerator, a H-400 computer, a BESM-6 computer and various special laboratories. A thorium plant is also operated in Trombay by the Indian Rare Earths Ltd., a public sector undertaking of the Department of Atomic Energy.

BARC produces over 350 types of radioactive products, of which quite a number are exported to some of the countries in Western and Eastern Europe, Africa, South America, Asia, and to Australia.

The Radiation Medicine Centre of BARC studies medical application of radio-isotopes. This is also done by the Tata Memorial Centre, Bombay. At BARC, considerable work has been done on studying the biological action of ionising radiation, induction of mutations in foodgrains of economic importance like rice and groundnut and on preserving perishable foodstuffs through irradiation. Several mutants of scientific and economic value have been isolated. Significant work has also been done in studies of controlling insect pests in stored grain through irradiation.

At Gauribidanur in Karnataka, a seismic array operated by BARC detects nuclear explosions within a 10,000 km range. Monitoring stations at different places in the country measure radioactive fall-out from atmospheric nuclear explosions.

BARC also has a Division of Radiological Protection which conducts a countrywide programme of radiation safety and runs a film badge service covering almost 2,000 institutions representing over 32,000 radiation workers.

Other Establishments

The Department of Atomic Energy is also responsible for three public sector undertakings, namely, the Indian Rare Earths Ltd., which commercially exploits atomic minerals in the beach sands of the southern coast; the Uranium Corporation of India, Jaduguda (Bihar) which mines and processes uranium and the Electronics Corporation of India, Hyderabad, which makes nuclear and non-nuclear electronic equipment.

The Department has a separate division which explores, surveys and locates important atomic minerals.

An important institution associated with the Department of Atomic Energy is the Tata Institute of Fundamental Research, Bombay, which is the national centre for advanced study in nuclear science and mathematics. Other institutions, assisted by the Department are: the Saha Institute of Nuclear Physics at Calcutta; the High Altitude Research Laboratory at Gulmarg in Kashmir; and the Radio Astronomy Centre at Ootacamund which has the largest radio-telescope of its kind in the world.

Nuclear Power

Managing nuclear power stations in the commercial phase is the responsibility of the Atomic Power Authority set up in July 1970 (For details of nuclear power stations, see chapter 'Irrigation and Power'). To meet the fuel and heavy water requirements of the power reactors, a nuclear fuel complex has been developed at Hyderabad. Heavy water plants are being built at Kota (Rajasthan), Vadodara (Gujarat), Tuticorin (Tamil Nadu) and Talcher (Orissa). A power reactor fuel reprocessing plant is being built at Tarapur (Maharashtra).

SPACE RESEARCH

The Department of Space, the Space Commission and the Indian Space Research Organisation (ISRO) have their headquarters at Bangalore. The chairman of the Space Commission is also Secretary to the Government of India in the Department of Space.

The major establishments under the Department of Space are: (i) the Vikram Sarabhai Space Centre, Trivandrum; (ii) the Sriharikota Range, Sriharikota (Andhra Pradesh); (iii) the Space Applications Centre, Ahmadabad; and, (iv) the Physical Research Laboratory, Ahmadabad. A brief account of the various units is given below.

The Thumba Equatorial Rocket Launching Station is a UN sponsored sounding rocket range for scientific investigation of the upper atmosphere over the geomagnetic equator which runs close to Thumba. It became operational in 1963 and offers facilities to all members of the United Nations to investigate problems of meteorology and ionosphere. Over 100 rockets were launched during 1973-74 from Thumba. Experiments included those covered under agreements with other countries. The Space Science and Technology Centre (SSTC), set up in 1965, is the main research and development laboratory. It has made significant advances in the development of sounding rockets and allied systems. Solid propellants for the rockets are produced at the Rocket Propellant Plant established in 1969, while at the Rocket Fabrication Facility rockets and other hardware, developed at the SSTC, are taken up for manufacture. The Propellant Fuel Complex at Trivandrum produces special materials required for the processing of propellants. The Satellite Launch Vehicle Project, Trivandrum, has been undertaken for developing an indigenous satellite launch capability for placing a scientific statellite of 40 kg in a 400 km circular orbit around the earth. Studies are also progressing for putting a satellite in synchronous equatorial orbit.

At the Sriharikota (SHAR) Range on the east coast in Andhra Pradesh, the Sriharikota Launch Complex is being developed as a national range for launching large multi-stage rockets, developed indigenously, both sounding rockets and satellite launching vehicles. The Rocket Sled Facility project has been taken up to establish a facility that simulates the conditions of flight, in laboratory, for the testing of rocket motors and systems. The Static Test and Evaluation Complex is being established for conducting various ground and high altitude tests for rocket motors and their sub-systems. The Sriharikota Common Facilities project takes care of estate management, transportation, communication, administration, touring and other facilities common to all SHAR projects.

The Indian Scientific Satellite project at Bangalore is engaged in the designing and fabrication of a satellite indigenously. The satellite which will weigh 300 kg will be put in a circular orbit of 600 km from a base in USSR using a Soviet launch vehicle. The satellite will carry out scientific experiments and collect data. Three of its experiments will be investigations in X-ray astronomy; measuring the neutron and gamma ray flux from the sun; and, measuring ionospheric parameters.

The Space Applications Centre, Ahmadabad, which is responsible for planning and executing projects involving the application of space technology and developing necessary hardware for this purpose has undertaken the Satellite Instructional Television Experiment (SITE) for demonstrating the use of satellite television for national development. The SITE will utilise the ATS-F satellite launched by the National Aeronautics and Space Administration (NASA) of USA for broadcasting instructional television to about 2,400 villages in different parts of India. The SITE project will be followed by a domestic satellite communication system for TV and tele-communication. A Remote Sensing and Meteorological Applications Division has been set up to develop earth resources survey and management using space technology. The Experimental Satellite Communication Earth Station imparts instruction in satellite communication technology.

The Physical Research Laboratory, Ahmadabad, has been the cradle of space science and technology in India and is being developed further as a national centre. Various universities and academic institutions in the country are also identified and encouraged to undertake development tasks relating to space science and technology.

ELECTRONICS

The Electronics Commission functions from Bombay and the Department of Electronics has its headquarters in New Delhi. The chairman of the Commission is also Secretary to Government of India in the Department of Electronics. While the Commission is responsible for a rapid, self-reliant and balanced growth of electronics in the country, the Department is concerned with various regulatory and promotional measures. A new public sector undertaking called the Electronics Trade and Technology Development Corporation to promote development and foreign trade in electronics has also been set up.

In 1973-74, an integrated five year plan for electronics was drawn up by the Commission. This will imply an investment of Rs 202 crores additional to what has been invested and is likely to generate, during the Fifth Plan period, a production potential of Rs 2,300 crores and job opportunities for about 3.6 lakh people. The Commission has set up a technology development council to identify areas of intensive research and development, assign relative priorities, finance, evaluate and monitor research and development efforts and help the transfer of the new know-how to production centres. A sum of Rs 20 crores has been allocated for technology development work.

Since different agencies in the country are engaged in the area of electronics, a national advisory committee was set up by the Commission in 1973 for exchange of ideas and information among them. A defence electronics committee ensures that defence requirements are taken care of in the planning of electronics development.

The Commission has an Information Planning and Analysis Group with cells in Delhi, Calcutta and Madras. This Group is in charge of developing computerised information systems and long range aspects of analysis and policy planning. The Group has been publishing from October 1973 a monthly journal, *Electronics—Information and Planning*.

NRDC

The National Research Development Corporation (NRDC), an autonomous body set up in 1953, acts as a link between research and industry. From 1 April 1973, NRDC has taken over the functions earlier performed by the Inventions Promotion Board, namely, encouraging inventive talent through, among other things, award of prizes to individual inventors for development of promising ideas. In 1973-74, NRDC signed 150 licence agreements including processes offered for the first time. During the year, the number of processes released through NRDC was 106. Twenty-three other processes were released to the industry as a result of sponsored work or as technical assistance. The number of processes so far released is 664, of which 282 have been used for commercial production, 38 in 1973 alone.

NRDC also brings out two monthly journals one in English, 'Invention Intelligence' and the other in Hindi 'Awishkar', besides a quarterly list of new processes.

CSIR

The Council of Scientific and Industrial Research (CSIR) with its network of laboratories and research institutions is a major instrument of scientific and industrial research under State auspices and supports research in universities and other centres of learning. The governing body of the Council was reconstituted in 1973 for a period of two years. During the year, its various research committees were also reconstituted and some were added. There are now 20 research committees. The fifth five year plan of CSIR, which is part of the overall S&T plan, was formulated in 1973 envisaging an outlay of Rs 104 crores.

The Council administers the 'Scientists' Pool', introduced in 1958, to provide temporary placement to well qualified Indian scientists, engineers and medical personnel returning from abroad, and later extended to highly qualified Indian scientists, who had not been abroad. The number of Pool officers working at the end of 1973 was 443. The CSIR also maintains a register of scientists and technical personnel in the country.

The Council has prepared a scheme to give facilities to scientists and technologists working in its laboratories to set up industries based on CSIR know-how. This is over and above the scheme to encourage Indian scientists and technologists abroad to set up industries in India under a package deal consisting of facilities of industrial licences, capital goods import and infrastructure like power and land.

Eight to ten per cent of the annual budget of CSIR is earmarked for research schemes and fellowships as support to universities and other academic institutions. The research schemes in progress in these institutions numbered 495 and there were 502 research fellows attached to these schemes in 1973. Besides, 3,537 *ad hoc* fellows selected by CSIR were also doing research in different institutions. Also 40 scientists were doing research in 1973 with the help of grants from the Council under 'Emeritus Scientists' scheme to help superannuated scientists continue their work after retirement.

The CSIR earned about Rs 70 lakhs in 1973 from premia, royalty, consultation, testing and other services, supply of project reports and sale of products of pilot plants.

National Laboratories

Physical Sciences

The laboratories run by CSIR and other institutions associated with it are grouped into six distinct disciplines. The national laboratories coming under physical and earth sciences discipline are: the National Physical Laboratory, New Delhi, set up in 1951; the Central Electronics Engineering Research Institute, Pilani, set up in 1953, which has developed television receivers using mostly indigenous material and also transistorised TV receivers using 12 inch picture tubes besides an excitation control system for diesel electronic locomotives; the Central Scientific Instruments Organisation, Chandigarh, with its service and maintenance centres at Calcutta, Madras and New Delhi; the National Geo-Physics Research Institute, Hyderabad, which, for the first time in India, is doing deep seismic sounding studies in the Indian peninsula in collaboration with the Soviet Union; and, the National Institute of Oceanography, Panaji, whose work includes research of relevance to prospecting for petroleum and minerals.

Chemical Sciences

The national laboratories under the chemical sciences group are: the National Chemical Laboratory, Poona, which has already developed many processes based on which commercial production of a number of products has been undertaken and which has a national collection of industrial micro-organisms; the Central Electro-Chemical Research Institute, Karaikudi, with field stations at Madras and Mandapam; the Central Salt and Marine Chemical Research Institute, Bhavnagar; and the Indian Institute of Petroleum, Dehra Dun.

Biological Sciences

The national laboratories under the biological sciences group are: the Central Food Technological Research Institute, Mysore, with experimental stations at Anantharajupet, Mangalore, Bombay, Lucknow, Ludhiana, Nagpur and Trichur; the Central Drug Research Institute, Lucknow, which has developed a new intra-vaginal contraceptive device, 'Centsquare', and has also successfully tried to make standard drugs from indigenous herbs in order to reduce imports of anti-biotics, anti-malarials and sulpha drugs; the Central Leather Research Institute, Madras, with its extension centres at Bombay, Calcutta, Jullundur, Kanpur and Rajkot; the National Botanical Gardens, Lucknow, with a research station at Banthra; the Institute of Experimental Medicine, Calcutta; the Central Indian Medicinal Plants Organisation, Lucknow, with its two zonal centres at Bangalore and Jammu-Tawi and four commercial centres at Bangalore, Haldwani, Jammu and Srinagar; the Central Public Health Engineering Research Institute, Nagpur, with its zonal laboratories at Ahmadabad, Bombay, Calcutta, Delhi, Hyderabad, Jaipur, Kanpur and Madras which, among other things, does research in sanitation and disposal of sewage and industrial wastage, industrial hygiene and pollution; and the Industrial Toxicology Research Centre, Lucknow, which studies the harmful effects of industrial toxins for developing preventive measures.

Engineering

The national laboratories under the engineering group are: the Central Fuel Research Institute, Dhanbad, which, among other things, does physical and chemical surveys of Indian coals through seven stations at Bilaspur, Jammu, Jealgora, Jorhat, Nagpur, Namkum and Raniganj; the Central Glass and Ceramic Research Institute, Calcutta, with a micro-research unit attached to it, whose work includes standardisation besides research; the National Metallurgical Laboratory, Jamshedpur, with regional foundry stations at Ahmadabad, Batala, Howrah and Madras; the Central Road Research Institute, New Delhi, whose work includes road safety, and standards for road building plant and machinery; the Central Building Research Institute, Roorkee, with a field station at Calcutta and extension cells at Ahmadabad and Bhopal, whose work includes building economics, management and functional efficiency and whose designs have already brought about an economy in costs between 20 and 30 per cent; the Central Mining

Research Station, Dhanbad, whose work includes mine-safety, design of equipment used in mining and development of mining machinery; the Central Mechanical Engineering Research Institute, Calcutta, with its research and development centres at Ludhiana, Madras and Poona, which, among other things, does research in the development of capital machinery, machine components and elements; the National Aeronautical Laboratory, Bangalore, which investigates problems of flight and does research in designing, construction and safe operation of aircraft; the Structural Engineering Research Centre, Roorkee, which does research in specialised designs and structural problems connected with buildings, bridges and other structures and develops utility computer programmes for the analysis and design of 'repeat' structures like multi-storeyed buildings, pre-stressed beams, shell roofs, folded plates and transmission line towers.

Fibre Technology

Five associations co-operatively conduct research in fibre technology. They are the Ahmadabad Textile Industries Research Association, Ahmadabad, the South India Textile Research Association, Coimbatore, the Bombay Textiles Research Association, Bombay, the Silk and Art Silk Mills Research Association, Bombay, and the Indian Jute Industries Research Association, Calcutta.

Eleven industrial research associations, three for cotton textiles and one each for art silk, wool, jute, plywood, rubber, tea, cement and automotive industry are helped financially by CSIR.

Information and Documentation

The encyclopaedic volumes on raw materials and industrial products brought out by CSIR are issued under the general title 'Wealth of India'. The Council also brings out nine journals besides other publications on scientific and technical information. In 1973, the Publications and Information Directorate of CSIR brought out 'Bharat Ki Sampada' supplement on *Pashudhan aur Kukkut Palan* corresponding to the 'Wealth of India' supplement on *Livestock and Poultry*.

The primary function of the Indian National Scientific Documentation Centre (INSDOC), New Delhi, is to provide documentation services to translate scientific papers from foreign languages into English and to maintain the National Science Library. It also publishes *Indian Science Abstracts* and *Annals of Library Science and Documentation* and compiles a series of catalogues which list the holdings of libraries and establishments such as the Indian Institute of Science and the Indian Agricultural Research Institute. In 1973, INSDOC prepared a framework for developing a National Information System for Science and Technology in India during the Fifth Five Year Plan period.

Regional Laboratories

The CSIR has four regional laboratories which are also national laboratories, undertaking studies of regional resources and raw materials for industrial exploitation. These are located at Bhubaneswar, Hyderabad, Jammu-Tawi and Jorhat.

Scientific Museums

The CSIR also maintains two science museums. The Birla Industrial and Technological Museum, Calcutta, depicts the progress made in scientific and technological fields; the Museum has ten galleries showing a chronological history of science and technology through working models, animated exhibits, diagrams and illustrated charts. A new gallery on 'transport' set up in 1973 depicts the evolution of the system of transport on land, water and air. The Visvesvaraya Industrial and Technological Museum, Bangalore, which arranges workshops, mobile exhibitions, demonstration lectures, student fairs and seminars to depict advancement in science and technology, has two galleries on electro-technics and motive power.

AGRICULTURAL RESEARCH

The Indian Council of Agricultural Research (ICAR), set up in 1929, is the apex body to plan, undertake, promote and co-ordinate agricultural and animal husbandry plans including research, education and field application. The Council gives support for the setting up and development of at least one agricultural university in each state. A recent step to provide the necessary government linkage for the ICAR is the setting up, in December 1973, of a Department of Agricultural Research and Education in the union Ministry of Agriculture, which, besides giving administrative support to ICAR, also co-ordinates the work of central and state agencies. The Director-General of ICAR is also Secretary to the Government of India in the Department of Agricultural Research and Education.

ICAR functions through a network of 22 research laboratories, a Directorate of All-India Soil and Land Use Survey, 19 agricultural universities, 17 all-India co-ordinated projects and a few other institutions. In 1973-74, 71 co-ordinated projects were in progress for research in different aspects of crop and soil sciences, agronomy and engineering, and animal sciences.

An important project in progress is the All-India Co-ordinated Project in Dry Land Agriculture. Twenty-four research centres are trying to evolve a new technology to improve the output in dryland conditions. This project is backed by Canadian help. Besides this, an operational pilot project for dryland research in black soils was taken up in 1973 at Indore in collaboration with the United Kingdom. Research in this field is of importance because 42 per cent of India's food output comes from rainfed areas which constitute 75 per cent of the cultivated land. Output in these areas is low and unstable because of erratic monsoon conditions.

Among other projects sponsored by ICAR are some operational research projects in rice production, integrated pest control of cotton, an oil seeds farming system at Chittorgarh in Rajasthan, jute production project at Barrackpore, potato seed projects at Patna and Shillong and a project in groundnuts, pulses and cereals at Puri. An operational research project in crop and livestock development is being carried out in Karnal, Palampur and Kodaikanal with New Zealand aid.

Significant increases in per acre yields and more scientific use of land and water leading to crop planning based on ecology-*cum*-economics and better yield of export crops are some of the Fifth Plan objectives motivating agricultural research.

MEDICAL RESEARCH

Medical research in India is largely done through the Indian Council of Medical Research (ICMR), New Delhi, through a network of research institutes and centres covering a wide spectrum. ICMR has seven permanent research institutions and centres, namely, the National Institute of Nutrition, Hyderabad; Virus Research Centre, Poona; Tuberculosis Chemotherapy Centre, Madras; Cholera Research Centre, Calcutta; Indian Registry of Pathology, New Delhi; National Institute of Occupational Health, Ahmadabad; and the Institute for Research in Reproduction, Bombay.

There are two statutory bodies to conduct research in various branches of medical sciences. They are the All-India Institute of

Medical Sciences, New Delhi, and the Post-Graduate Institute of Medical Education and Research, Chandigarh. There is also an All-India Institute of Speech and Hearing at Mysore which has been functioning under the union Ministry of Health and Family Planning since 1965. Clinical facilities are available at all these institutes.

Study of Diseases and Treatment

Some of the institutions doing work in particular branches of medicine and treatment are the Indian Cancer Research Centre, Bombay, Cancer Institute, Madras, and the Chittaranjan Cancer Research Centre, Calcutta, besides the cancer wing being developed at Safdarjang Hospital, New Delhi, as a regional institution for cancer; the National Tuberculosis Institute, Bangalore, Vallabhbhai Patel Chest Institute, Delhi, where research in chest ailments including tuberculosis is done; Central Leprosy Teaching and Research Institute, Chingleput, which trains medical and para-medical personnel, treats leprosy patients and is recognised as a WHO regional centre for certain investigations in leprosy; the National Institute of Communicable Diseases, Delhi (previously known as the Malaria Institute of India, established in 1909), which has eight divisions dealing with different aspects of all communicable diseases and which has been designated as a WHO reference centre; and the School of Tropical Medicine, Calcutta.

The All-India Institute of Hygiene and Public Health, Calcutta, imparts post-graduate training, besides doing research. The Rural Health Unit and Training Centre, Singur, and the Urban Health Centre, Chetla, are attached to this Institute. Biological and chemical assays of drugs are carried out at the Central Drugs Laboratory, Calcutta, which also maintains a herbarium and gives technical advice to drug manufacturers.

Micro-biology and Related Studies

The Central Research Institute, Kasauli, is the central laboratory for all biological products and for the collection and distribution of bacterial type culture and international standards of toxins and anti-toxins. It is also the national centre for salmonella and escherichia group of organisms and for influenza. Problems of micro-biology, virology immunology and bio-chemistry are covered by the investigations at the Institute. The Pasteur Institute, Coonoor, does research in rabies, influenza, other respiratory virus infections, diseases caused by intestinal viruses like polio, coxsackie and ectto group and smallpox, and bacterial diseases like enteric fevers and syphilis. It is also engaged in the production of anti-rabies vaccine and oral polio-myelitis vaccine. It serves as the international reference centre of WHO on rabies. The King Institute of Preventive Medicine, Guindy, Madras, gives post-graduate training in micro-biology, makes and supplies prophylactic vaccines, freeze-dried smallpox vaccine; anti-tetanus sera, tetanus toxoid and blood products. It also undertakes public health bacteriological investigations. The Haffkine Institute, Bombay, established in 1896, does research in bacteriology, experimental medicine, chemotherapy, pharmacology, pathophysiology, biochemistry, immuno-haematology, immunology and virology related to communicable and other diseases. It also undertakes drugs analysis and biological standardization. It trains scientists for post-graduate degree and provides public health laboratory services by way of diagnosis of diseases and epidemiological investigations. It manufactures some bacterial and viral vaccines, anti-toxins and other biologicals including human plasma products.

DEFENCE RESEARCH

The Defence Research and Development Organisation (DRDO), set up in 1958 by amalgamating some of the technical development establishments of the Defence Science Organisation, has now under its control 32 research and development establishments and laboratories covering, among others, armaments, engineering, vehicles, propellants, electronics, aeronautics, rockets and missiles, metallic and non-metallic materials and composites, naval technology, high altitude and food research. Expenditure on defence research has grown from about Rs 1.5 crores in 1958-59 to about Rs 34 crores in 1973-74. The estimated number of scientific and technical personnel employed in DRDO also rose to about 7,000 in 1972-73 from about 1,500 in 1958-59. DRDO maintains close liaison with scientific and technological activity within the country and abroad. About a thousand research and development projects are in progress in the various divisions of the Organisation. It has set up a systems analysis group for aeronautics at Bangalore and is giving particular attention to increasing expertise in naval research and radar technology. A special group has also been set up for research in rocket and missile technology.

DEPARTMENTAL RESEARCH

A number of other government departments remain responsible for certain branches for research.

Geology

The Geological Survey of India (GSI) with its headquarters at Calcutta was established more than 120 years ago. Besides conducting geological, geochemical, geophysical surveys and studies of environmental geology, including geotechnical surveys to help environmental development, it does research in new techniques in exploration and fundamental research in geology, geochemistry and allied fields. Results of these studies are disseminated through maps and publications of GSI which functions through 6 regional offices, 29 circle offices and 22 specialised divisions.

Hydraulic and Power Research

The Central Water and Power Research Station at Khadakvasla near Poona, the pioneer hydraulic research station in India, is recognised by the ECAFE as its regional laboratory. There are 10 other hydraulic research stations in the country. The Central Board of Irrigation and Power supervises the work done by 21 irrigation and 20 power research stations on problems of river valley projects, power stations and transmission systems.

The Central Power Research Institute, set up with UNDP aid for research in problems of generation, transmission and distribution of energy, has two units, one at Bangalore and the other at Bhopal.

Meteorology

The India Meteorological Department, organised on an all-India basis in 1875, is the national agency for providing services in the field of meteorology. Meteorological data are collected from over 932 observatories of different types and processed. The Department, along with the Indian Institute of Tropical Meteorology (IITM), Poona, conducts fundamental and applied research in various aspects of meteorology like weather forecasting, climatology, agricultural meteorology, hydrology and instrumentation. Research is also done in seismology. The Indian Institute of Astrophysics, Kodaikanal and the Indian Institute of Geomagnetism, Bombay, responsible for research in the fields of astrophysics and geomagnetism respectively, have been constituted as autonomous institutes along with IITM.

Broadcasting The engineering department of All India Radio maintains a research unit at New Delhi to investigate problems having a direct bearing on and utility to sound broadcasting and television. Its work includes study of propagation of radio waves in MF, HF and VHF bands, studio acoustics and acoustic materials, transducers and tape recording. The design divisions of the Research Unit are engaged in designing sound and TV equipment and receivers, FM transmitters and receivers, aerials and measuring instruments with stress on import substitution. The proto-type and production section produces a limited quantity of equipment for use in AIR network. In 1973-74, the unit completed the design and development of Distortion and Noise Level (DNL) Meter.

Telecommunication The Posts and Telegraphs Department has a telecommunication research centre (TRC) located at New Delhi. It is engaged in the design and development, for indigenous manufacture, of all types of communication equipment and systems needed for the expansion and improvement of the telecommunication network of the country. From its inception 18 years ago and up to 1973-74, total production was placed at Rs 60 crores, of which the saving in foreign exchange was nearly Rs 45 crores.

Anthropology The work of the Anthropological Survey of India, with headquarters at Calcutta, includes social, psychological, economic, linguistic, physical and genetic investigations. Its regional stations are located at Dehra Dun, Mysore, Nagpur, Port Blair and Shillong. An Anthropological Museum has also been set up at Jagdalpur in Madhya Pradesh.

Aviation The Department of Civil Aviation has a Directorate of Research and Development concerned with design and air-worthiness of civil aircraft and equipment, aircraft performance testing, development of indigenous aircraft materials, design and manufacture of prototype of gliders and light training aircraft, selection of suitable aircraft types for civil operations and safety in air operations.

Railways The Railway Board has a research centre at Lucknow, known as the Research, Designs and Standards Organisation with sub-stations at Chittaranjan and Lonavla.

Roads The Indian Roads Congress functioning under the Ministry of Transport deals with problems of road development and road materials, highways and bridges engineering, ports and harbours.

Forests The Forest Research Institute at Dehra Dun conducts research on the utilisation of timber for constructional purposes.

8 HEALTH

Over two decades of planned development has resulted in vastly improved health facilities. The number of doctors and hospital beds has increased by more than 2½ times and that of nurses by more than five times. In rural areas, there were over 5,200 primary health centres in March 1974 whereas none existed before 1951. Epidemics like malaria, TB, smallpox, cholera and plague, which took a heavy toll of life, are now no more great killers. Owing to these steps, the death rate has come down from 27.4 per thousand in 1949-50 to 15.1 per thousand in 1971 and life expectancy at birth has increased from 32 years to 50 years. But it has also resulted in 51.8 per cent rise in population during this period. To check this growth rate, the family planning programme was launched as an official programme in 1952. So far, 1.6 crore couples in the reproductive age group have been protected.

Public health is primarily the responsibility of the state governments. The central government, however, sponsors and supports major schemes for improving the health of the people. The agency which carries out this task is the Ministry of Health and Family Planning. The Central Council of Health advises the ministry on policies and programmes in all their aspects.

Objectives

The broad objectives of the health programmes are to control and eradicate communicable diseases, to provide curative and preventive health services in rural areas through the establishment of a primary health centre in each community development block and to augment programmes for the training of medical and para-medical personnel. In the Fourth Plan, sub-divisional and district hospitals were strengthened to serve as referal centres for the primary health centres.

In the Fifth Plan, the aim is to provide minimum public health facilities integrated with family planning and nutrition for vulnerable groups—children, pregnant women and lactating mothers. The accent will be on (i) increasing the accessibility of health services to rural areas, (ii) correcting the regional imbalance, (iii) intensification of the control and eradication of communicable diseases, especially malaria and smallpox, (iv) qualitative improvement in the education and training of health personnel, and (v) development of referal services by providing specialists in the upgraded primary health centres in rural areas and by removing the deficiencies in the district and sub-divisional hospitals.

In the first three Five Year Plans and the three Annual Plans, the total outlay on various health programmes was Rs 602.27 crores. The expenditure on major programmes in the Fourth Plan and the outlay for the Fifth Plan are shown in Table 8.1.

ERADICATION AND CONTROL OF DISEASES

To eradicate and control major communicable diseases, a number of national programmes are in operation. These include national eradication programmes for malaria and smallpox and national control programme for filaria, leprosy, trachoma, TB, VD and cholera. In the Fourth Plan these received 100 per cent assistance from the central government. During the Fifth Plan, programmes relating to malaria, smallpox and leprosy will continue to get 100 per cent financial assistance from the centre, while expenditure on programmes concerning filaria, TB, VD and cholera will be shared between the centre and the states.

TABLE 8.1
EXPENDITURE IN THE FOURTH PLAN AND OUTLAY FOR THE FIFTH PLAN

(*Rs crores*)

Programme	Anticipated expenditure (1969-74)	Fifth Plan outlay
Minimum Needs Programme	34.27	291.47
Medical education and research	78.74	94.56
Training programmes	7.25	17.20
Control of communicable diseases	99.26	168.61
Hospitals and dispensaries	82.66	155.62
Indigenous systems of medicine and homoeopathy ..	15.09	27.73
Other programmes	26.64	40.81
TOTAL	343.91	796.00

Malaria

Malaria took a toll of seven lakh lives in the post-partition period. A Malaria Control Programme was, therefore, launched in 1953. In 1958 it was converted into National Malaria Eradication Programme. It succeeded in reducing the case incidence from 7.5 crores in the post-partition period to only 1.5 lakh in 1965. Further, there were no deaths due to malaria in 1965. But there were set-backs in the programme after 1965. This was due partly to vector mosquitoes having developed resistance to DDT and partly to ineffective supervisory services. The Government of India is now trying to improve the situation.

Training of personnel in methods of malaria eradication is given at the National Institute of Communicable Diseases, Delhi, and the regional co-ordinating organisations at Bangalore, Bhubaneswar, Hyderabad, Lucknow, Shillong and Vadodara.

Smallpox

Smallpox was another great killer before 1947. So the National Smallpox Eradication Programme was launched in 1962 with emphasis on intensive primary vaccination campaign and revaccination of vulnerable groups of population. Consequently, the incidence of smallpox declined continuously and the disease was largely contained. Of late, however, there has been a rising trend in the figures of incidence. This can partly be ascribed to intensive search for smallpox cases carried out throughout the country followed by containment of the detected outbreaks. As a result, 87,509 cases with 15,348 deaths were reported in 1973 as against 27,407 cases with 5,457 deaths in 1972. In 1973, 2.41 crore primary vaccinations and 8.53 crore revaccinations were performed.

Leprosy

The National Leprosy Control Programme has been operating since 1969-70. The number of people exposed to leprosy risk is about 37.2 crores, of which 10.7 crores have been covered so far. The estimated leprosy cases are about 32 lakhs, of which about 8 lakhs are infectious. Another 11 lakh cases have been recorded and are being given treatment by 251 leprosy control units, 1,500 SET centres, 34 voluntary agencies and 3 international organisations. To cover the entire population under the programme, it is proposed to set up 140 leprosy control units, 7,160 SET centres, 540 urban leprosy centres and six training centres. In addition, 300 temporary hospitalisation wards would be opened for reconstructive surgery. Grants would also be given to 100 hospitals for the same. The reconstructive surgery programme has been intensified and leprosy patients with deformities of hands, feet and face now get facilities of reconstructive surgery in about 30 hospitals.

Training of medical and non-medical personnel is conducted by 13 government training centres, 6 voluntary training centres and the Central Leprosy Teaching and Research Institute, Chingleput (Tamil Nadu), which also conducts research. The Leprosy Advisory Committee advises the union government on the implementation of the programme.

Filaria

The National Filaria Control Programme has been in operation since 1955. Estimates indicate that 13.6 crore people are exposed to the risk of filariasis with 80 lakhs having manifestation of the disease and 1.2 crores with filarial parasites in their blood.

Activities under the programme are at present confined only to anti-larval operations in urban areas where 136 filaria control units provide protection to 1.5 crore persons. Besides, 12 Headquarters Bureaux are also functioning at the state level. So far, only 145 out of 260 districts in the endemic states have been surveyed. During the Fifth Plan, 32 survey units would be set up for delimitation of the problem in the remaining 115 districts. In addition, 65 filaria control units and 480 clinics would also be established.

Training in filariology is given at the three Regional Filaria Training and Research Centres at Calicut (Kerala), Rajahmundry (Andhra Pradesh) and Varanasi (Uttar Pradesh).

Tuberculosis

The BCG Vaccination Programme was started in 1949. About 25.10 crore persons had been tuberculin tested and 17.51 crore persons vaccinated till December 1973. Estimates indicate that there are about 80 lakh active radiological TB cases, of which nearly 20 lakhs are infectious cases. Five hundred and fortyseven clinics have been set up, of which 284 have been upgraded as District TB Centres. Nearly 39,000 beds are available for in-patient treatment. Seventeen centres provide training facilities to the medical and para-medical personnel in different parts of the country. The National TB Institute, Bangalore, conducts re-orientation courses for medical and para-medical personnel from different states for the implementation of the district TB programme. The Institute also carries out operational research in the field of tuberculosis. A post-graduate diploma course in tuberculosis and chest diseases is also conducted at the Vallabhbhai Patel Chest Institute, Delhi.

The Tuberculosis Association of India, which is the largest voluntary organisation, also assists in combating the disease. Another 200 District TB Associations all over the country provide assistance in anti-TB activities.

Venereal Diseases

At present, 313 clinics for venereal diseases are functioning in the country. Training facilities in VD control are available at the Training Centre, Safdarjang Hospital, New Delhi, and the Institute of Venereology, Government General Hospital, Madras. A second VDRL Antigen production unit at Calcutta and a mobile VD unit at Delhi have also started functioning.

Trachoma

The National Trachoma Control Programme, which was started in 1963, is in operation in Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya

Pradesh, Manipur, Meghalaya, Punjab, Rajasthan, Uttar Pradesh, Chandigarh and Mizoram. During 1974-75, the programme would be extended to Andhra Pradesh, Maharashtra and the union territories of Delhi, Goa, Daman and Diu Andaman and Nicobar Islands and Dadra and Nagar Haveli.

Till March 1974, about 8.7 crore people had been covered under the programme.

Cancer

There are 50 general hospitals where facilities for cancer treatment are available in the form of radium and surgery.

Research into problems of cancer is primarily conducted at the Research Institute, Ahmadabad; S.N. Medical College, Agra; Cancer Research Institute, Bombay; Tata Memorial Hospital, Bombay; Chittaranjan Cancer Hospital, Calcutta; Chittaranjan Cancer Research Centre, Calcutta; Cancer Wing, SCB Medical College, Cuttack; Cancer Hospital and Radium Institute, Hyderabad; Institute of Radiology and Cancer Research, Kanpur; Cancer Institute, Madras; Institute of Radiology and Cancer, Madras; International Cancer Centre, Neyoor; Cancer Wing, Safdarjang Hospital, New Delhi; Radium Institute, Patna; and Cancer Institute, Trivandrum.

The Indian Council of Medical Research has started collaborative research schemes at various institutions to study the epidemiology of oral and cervical cancer and cancers of uterine cervix and breast.

MEDICAL RELIEF AND SERVICE

Medical relief and service is primarily provided by state governments. Certain charitable institutions also provide medical relief. The number of beds in hospitals in 1973-74 was 2,81,600 as compared to 1,13,000 in 1956-57. In the rural areas, there were 5,250 primary health centres at the end of the Fourth Plan as against 725 in March 1956. The number of doctors and nurses during 1973-74 was estimated at 1,38,000, and 88,000 respectively.

Central Government Health Scheme

The Central Government Health Scheme, was launched in July 1954 for central government employees and their families in Delhi and New Delhi. Now it also covers Allahabad, Bombay, Calcutta, Kanpur, Meerut and Nagpur. Central government pensioners and widows of central government employees, who are getting family pension, are also eligible for the scheme. The staff and families of certain autonomous and semi-government organisations in Delhi, members of Parliament and Delhi police employees and their families are also covered by it. In certain selected areas in Delhi, the scheme has been extended to the public on payment of prescribed charges.

The total number of families covered by the scheme was about 2.8 lakhs in 1973-74 accounting for about 11.78 lakh beneficiaries.

Primary Health Centres

The primary health centre forms the base of the integrated structure of medical services in the rural areas. At the end of March 1974, 5,250 centres were functioning in the country. Of these, over 1,200 are planned to be upgraded to 30-bed rural hospitals in the Fifth Plan. They will provide specialist treatment and better diagnostic facilities. Basic health services have been established in 2,897 primary health centres.

INDIGENOUS SYSTEMS OF MEDICINE

A large number of people in India, especially in the villages, make use of indigenous systems of medicine. They consult hereditary Vaidyas and Hakims who practise medicine as a family profession. To evolve a uniform standard of education in Indian systems of medicine, the Central Council of Indian Medicine was set up in 1971. The Council has finalised uniform syllabi for under-graduate education in Ayurveda, Siddha and Unani. The Council also maintains an all-India register of qualified practitioners of Indian systems.

Under-graduate Education

There are 92 Ayurvedic, 10 Unani and one Siddha under-graduate colleges in the country. To ensure a requisite standard of education, the central government gives financial assistance to these institutions for non-recurring expenditure such as the construction of college buildings and essential equipment, up to a maximum of Rs 5 lakhs per institution.

Post-graduate Education

Post-graduate education in the Indian systems is imparted by the Gujarat Ayurvedic University, Jamnagar, and the Post-graduate Training and Research Institute at Banaras Hindu University. Besides, 14 departments of Ayurveda, 2 Unani and 2 Siddha have been upgraded for post-graduate education. Four more departments are proposed to be upgraded in the Fifth Plan.

Homoeopathy

There are 74 institutions imparting training in homoeopathy which have been recognised by various State Boards and Councils. Six of these are government institutions. The Homoeopathic Advisory Committee advises the central government on the development of homoeopathy.

The Homoeopathic Pharmacopoeia Committee has brought out the first volume of the Homoeopathic Pharmacopoeia of India and the second volume has been finalised.

The Homoeopathic Central Council Act, 1973 is to be enforced soon. Under this Act, a Central Council of Homoeopathy will be set up which will determine the minimum standards of homoeopathic education throughout India and will maintain a central register of homoeopathic practitioners.

Nature Cure

The Nature Cure Advisory Committee in the union Ministry of Health and Family Planning is responsible for the development of nature cure. For this purpose, the central government gives grants to research and educational institutes.

Research

The Central Council for Research in Indian Medicine and Homoeopathy, established in 1969, is responsible for initiating and co-ordinating scientific research in different aspects—fundamental and applied—of the Indian systems of medicine and Homoeopathy and Yoga. The Council has five scientific advisory boards, one each for Ayurveda, Siddha, Unani, Homoeopathy and Yoga. It has undertaken collection and identification of medicinal plants, drug standardisation and clinical research. Boards have also been set up in all the states for the regulation of practice in indigenous systems of medicine.

CONTROL AND MANUFACTURE OF DRUGS

The Drugs and Cosmetics Act regulates the import, manufacture, sale and distribution of drugs and cosmetics in the country. Under the Act, the import, manufacture and sale of sub-standard, adulterated or misbranded drugs is prohibited. The union government is empowered to check the quality of imported drugs, co-ordinate the activities of the states, lay down regulatory measures and standards of drugs and grant approval for import or manufacture of new drugs. The control over the quality of drugs which are manufactured, sold and distributed in the country is exercised by the state governments. Zonal offices of the Central Drugs Standard Control Organisation functioning at Bombay, Calcutta, Ghaziabad and Madras maintain close liaison with the state organisations for enforcement of the provisions of the Drugs and Cosmetics Act. The Central Drugs Standard Control Organisation arranges training programmes for personnel concerned with Drugs Standard Control.

The Central Drugs Laboratory, Calcutta, functions as the testing laboratory for imported drugs as well as the appellate laboratory under the Drugs and Cosmetics Act to test samples of drugs sent to it by courts. The Central India Pharmacopoeia Laboratory, Ghaziabad, tests samples of non-biological drugs and draws up standards of drugs included in the Indian Pharmacopoeia.

Drugs Price Control

The prices of drugs are regulated by the Drugs Price Control Order, 1970 which prescribes a formula for retail selling price of drugs. Prior approval of the government is necessary for revising the prices of the existing drugs or for fixing the prices of new introductions. On the recommendations of a working group the government has fixed the selling prices of 23 important bulk drugs.

Vaccine Manufacture

The BCG Vaccine Laboratory, Guindy, Madras, is one of the largest vaccine producing laboratories in the world. It supplies biologicals (PPD, Tuberculin, freeze dried BCG vaccine and freeze dried liquid vaccine) on payment basis out of the grants paid to the states and union territories by the centre.

The Central Research Institute, Kasauli, supplies vaccine for TAB, cholera, rabies, influenza, antivenom sera and tetanus toxoid.

The Haffkine Institute at Bombay manufactures vaccines, antitoxins and other biologicals.

Objectionable Advertisements

The Drugs and Magic Remedies (Objectionable Advertisements) Act, 1955 prohibits the publication of objectionable advertisements relating to sexual stimulants, alleged magic cures for venereal diseases and diseases peculiar to women. The Act, amended in 1963, also controls the import and export of objectionable advertisements in liaison with the customs and postal authorities who can intercept articles suspected to contain objectionable advertisements.

Medical Depots and Factories

The Medical Stores Organisation, with six depots at Bombay, Calcutta, Gauhati, Hyderabad, Karnal and Madras, procures and ensures supply of quality medical stores to about 16,000 hospitals and dispensaries all over the country.

At the factories of the organisation, a large number of drugs and dressings are manufactured to meet the requirements of both civil and military medical store depots. The factories at Bombay and Madras also manufacture contraceptive foam tablets and cream.

HEALTH EDUCATION

The Central Health Education Bureau, which was set up in 1956, co-ordinates and promotes health education through various national and state health programmes. The main activities of the Bureau, which has various technical divisions, are to prepare and distribute 'type' health education materials to the states and other agencies for use by health personnel in their educational programmes and to develop health education syllabi for different age groups of school children and teacher trainees at various levels. It also provides technical guidance for the development of health education in the states and union territories. So far, 16 states and 3 union territories have set up health education bureaux. Seventy two District Health Education units have also been established.

MEDICAL EDUCATION, TRAINING AND RESEARCH

To promote medical education 100 medical colleges, as against 30 in 1950-51, 15 dental colleges and 11 other institutions are functioning in the country. Establishment of new medical colleges and expansion of the existing ones have raised their admission capacity from 2,500 in 1950-51 to over 12,500 in 1973. Seven new medical colleges were opened in the Fourth Plan. The doctor-population ratio, which was 1 : 5,150 in 1968, has improved to 1 : 4,300 by 1974.

Specialised Training

Facilities for the training of nurses exist in all major hospitals and Colleges of Nursing at Ahmadabad, Bangalore, Bombay, Chandigarh, Hyderabad, Indore, Kanpur, Madras, New Delhi, Poona, Trivandrum and Vellore. State governments and non-official organisations also organise auxiliary nurse-midwife courses with help from the centre.

There are 601 nursing and health schools and colleges for training of nurses, auxiliary nurses/midwives and health visitors. In 1973, the number of students in these institutions was 19,121, 12,077 and 1,642 respectively. Besides, two universities provide Master of Nursing degrees.

Research

The Indian Council of Medical Research initiates, develops and co-ordinates medical research in the country. It is financed mainly by the Government of India. The Council maintains, besides a number of semi-permanent units, seven permanent research institutes and centres, namely, the National Institute of Nutrition, Hyderabad, Virus Research Centre, Poona, TB Chemotherapy Centre, Madras, Cholera Research Centre, Calcutta, Indian Registry of Pathology, New Delhi, National Institute of Occupational Health, Ahmadabad and the Institute for Research in Reproduction, Bombay. The activities of the Council cover a wide spectrum. For details, see chapter 'Scientific Research'.

NUTRITION AND PREVENTION OF FOOD ADULTERATION

Surveys conducted in different parts of the country have revealed that under-nutrition and malnutrition are prevalent in large sections of the population. The most affected segment is the vulnerable population consisting of young children and expectant and nursing mothers. To protect their health, various nutrition programmes have been launched by the Ministries of Health and Family Planning, Agriculture and Education and Social Welfare. Important among them are the School Meal Programme for primary school children and the Crash Feeding Programme (supply of toned milk and fortified bread) to pre-school children in city slums and tribal areas in different states. The number of beneficiaries covered by the two schemes up to the end of the Fourth Plan was about 1.8 crores. It is proposed to cover 1.1 crore more beneficiaries under these schemes during the Fifth Plan. In addition, a Supplementary Feeding Programme for children in the age group 3-6 through Balwadis is being implemented in rural areas. Production and consumption of nutritious foods by the rural community is also encouraged under the Applied Nutrition Programme (see chapter 'Community Development and Co-operation'). Other measures include supply of concentrated doses of Vitamin A to children to control blindness among them, supply of tablets containing iron and folic acid to expectant mothers and pre-school children to control anemia and supply of iodized salt to control goitre. About 7.5 crore people were covered under these schemes during the Fourth Plan.

Modern Bakeries

The Modern Bakeries (India) Ltd., New Delhi, a public sector undertaking, was set up in 1965 to provide hygienically prepared, enriched and fortified bread to consumers and also the children covered by the supplementary feeding programme.

Prevention of Food Adulteration

The Prevention of Food Adulteration Act, 1954 is in force throughout the country. The food laws are implemented by local bodies except in a few states where they are enforced by the state Food and Drugs Administration. These provide for deterrent punishment to offenders and prohibit the manufacture, import or sale of adulterated food articles. An amending Act which came into operation from 1 March 1965 provided for the appointment of food inspectors by the Government of India. A squad of 5 food inspectors has been established at the Directorate-General of Health Services to investigate the cases of food adulteration at inter-state level. The Central Committee for Food Standards advises the central and state governments on the implementation of the Act. The Central Food Laboratory, Calcutta, functions as an appellate laboratory for cases referred to by the courts and also carries out investigations to standardise methods of analysis. Another Food Research and Standardisation Laboratory is being established at Ghaziabad.

Water Supply and Sanitation

The National Water Supply and Sanitation Programme was launched in 1954 as part of the Health Plan to assist the states in their urban and rural water supply and sanitation schemes so as to provide adequate water supply and sanitation facilities in the entire country. A Central Public Health and Environmental Engineering Organisation (CPHEEO) was also set up in 1956 to provide technical advice and guidance to state governments in the preparation and execution of their schemes. The programme and the organisation were transferred to the union Ministry of Works and Housing in February 1973. By March 1974, 1,647 towns had been provided with water supply benefiting a population of nine crores (about 83 per cent of the total urban population). Also, 186 towns with a population of four crores (38 per cent of the total urban population) had been covered by sewerage system. Of the 5.76 lakh villages, about 28,000 with a total population of 1.90 crores (about 4.3 per cent of total rural population) had been provided with pipe water supply up to March 1974. Of the remaining villages, about 4.55 lakhs have some kind of water supply like hand pumps, conserved wells and springs but in about 1.16 lakh villages water is not available within a depth of 50 ft or a distance of one mile. The Fifth Plan makes an allocation of Rs 564.23 crores for this purpose under the Minimum Needs Programme. Apart from the programmes in the state sector, CPHEEO administers six central programmes which have a total provision of Rs 16.60 crores in the Fifth Plan.

FAMILY PLANNING

Family Planning as an official programme was adopted in 1952. The First Five Year Plan recognised that a rapidly growing population would be more a source of embarrassment than of help in raising the standard of living of the people. The aim was to reduce the birth rate to a level the national economy could sustain. The Second Five Year Plan emphasised that a higher rate of population growth was bound to affect adversely the rate of economic advance and the living standards per capita. During these two Plans (1951-1961), family planning programme was taken up in a modest way with clinical approach. The stress was mainly on research in the field of motivation, communication, demography, physiology of reproduction and on the extension of central and state organisations in providing clinical services. The programme was reorganised in the Third Plan after the publication of the 1961 census results which showed a higher growth rate than anticipated. The clinical approach was supplemented by extension approach under which the message, services and supplies of contraceptives were taken to the people. A full-fledged Department of Family Planning was created in 1966 in the Ministry of Health, Family Planning and Urban Development. During the three Annual Plans (1966-69) the family planning programme, which was described as the 'kingpin' of the Plan, was made time bound and target oriented with vastly increased funds. In the Fourth Plan, the programme was accorded the 'highest priority'. The approach during the Fifth Plan will be to increasingly integrate family planning services with those for health, maternal and child care and nutrition. The family planning workers will thus be converted into multi-purpose workers who will be able to pay special attention to purveying family planning motivation and services.

A sum of Rs 516 crores has been provided for this programme during the Fifth Plan as against Rs 14 lakhs in the First Plan, Rs 2.15 crores in the Second Plan, Rs 24.86 crores in the Third Plan and Rs 280.36 crores in Fourth Plan.

Aims and Targets

The programme aims at reducing the annual birth rate from about 39 per thousand in 1969 to 30 by the end of the Fifth Plan and 25 by 1983-84. The operational goals are to protect about 4 crore couples in the reproductive age group by any method of family planning. So far, 1.6 crore couples in the reproductive age group have been covered.

Implementation Machinery

The programme is implemented through the state governments for which cent per cent central assistance has been assured till the end of the Fifth Plan. In rural areas, the programme will be extended through the Minimum Needs Programme so as to reach the remotest areas. The scheme envisages (a) one primary health centre for each community development block; (b) one sub-centre for a population of 10,000; (c) making up the backlog and deficiencies in buildings, staff and equipment; (d) provision of drugs at the enhanced level of Rs 12,000 per annum per primary health centre and Rs 2,000 per annum per sub-centre; and (e) upgrading one out of every four primary health centres to a 30-bed rural hospital.

The Central Family Planning Council advises on family planning at the national level. A number of central committees, like the Research Co-ordination Committee, have been set up to study the progress of research programmes.

Voluntary organisations and private medical practitioners are also associated to make the maximum use of available resources for optimum results. At present, 1,919 urban centres and 5,243 rural centres are functioning in the country along with 33,048 sub-centres.

IUD and Sterilizations

IUD and sterilization services are offered both through mobile and static units. During 1973-74, 3.59 lakh insertions were carried out and 9.05 lakh persons were sterilized. Since 1952, a total of 148.83 lakh sterilizations and 50.05 lakh IUD insertions had been done up to March 1974, giving a rate of 25.5 and 8.6 per 1,000 population respectively.

Nirodh

Nirodh (condom) is presently distributed all over the country through three schemes, namely, Free Supply Scheme, Depot Holder Scheme and Commercial Distribution Scheme.

Nirodh and other conventional contraceptives are distributed free to interested couples under the Free Supply Scheme through family planning centres and sub-centres numbering about 40,000. In addition, family planning field workers also distribute conventional contraceptives free during their field visits. Under the Depot Holder Scheme, Nirodh is sold through selected rural post offices at 5 paise for 3 pieces. The total free distribution of Nirodh during 1973-74 was about 10 crore pieces. Under the Commercial Distribution Scheme, six of the country's largest and most experienced consumer goods marketing companies are selling Nirodh through their regular network of salesmen, distributors, wholesalers and retailers. The sales of Nirodh under this scheme have increased from 1.57 crore pieces during 1968-69 to 11.62 crore pieces in 1973-74.

Oral Contraception

The oral pill was introduced as a pilot project in the family planning programme in 1967. Three hundred nineteen oral contraception projects have been commissioned so far.

Medical Termination of Pregnancy

The Medical Termination of Pregnancy Act came into force from 1 April 1972. It extends to the whole of India, except Jammu and Kashmir, and provides for the termination of certain pregnancies by registered medical practitioners in well-equipped institutions. So far, 550 government and private institutions have been approved in various states and union territories for this purpose.

Post-partum Programme

To propagate the message of family planning among women attending hospitals for delivery and abortion, a Post-partum Programme was started in 1969-70 in 59 selected hospitals. The number of such hospitals increased to 255 in 1973-74 which included many district hospitals.

Training

The Fifth Plan envisages the conversion of health and family planning workers into multi-purpose workers. Their training programme has been modified accordingly. It will be conducted at their respective primary health centres. Other senior personnel will be trained at 60 Health and Family Planning Training Centres. Seven central training institutes train, among others, district level programme officers.

Motivation and Education

The family planning programme in India is purely voluntary in character and it is left to be people to decide when and how one should take to one or the other method of contraception. The Mass Education and Media Division of the Department of Family Planning disseminates information and instructions on subjects related to family planning, including methods, and tries to create a favourable atmosphere for the adoption of small family norm. This is done through the integrated use of all available mass media as well as group and inter-personal communication. Assistance of voluntary organisations, Panchayats and local institutions is also enlisted for promoting the programme. For securing more active involvement of the opinion leaders from all walks of life, a direct mail project was launched in 1969. At present, the mailing list contains addresses of over 10 lakh opinion leaders. Suitable printed material is mailed to these leaders from time to time. To make the younger groups aware of the problem, a programme of population education is being planned in co-ordination with the Ministry of Education.

Research and Evaluation

To obtain maximum results within the financial and physical resources allocated to the programme, research is being conducted in the field of demography, communication action, reproductive biology and fertility control. In the field of demography and communication action, eight Demographic Research Centres and four Communication Action Research Centres and one Demographic and Communication Action Research Centre are functioning, besides the National Institute of Family Planning, New Delhi. The International Institute for Population Studies, Bombay, apart from conducting investigations, also imparts training in demography to both Indian and foreign students. Various universities and institutions such as the Operational Research Group, Vadodara, the Population Council of India and the Indian Institute of Management, Calcutta, are conducting surveys and studies for assessing the characteristics of acceptors and fertility of the population.

Bio-medical research, both basic and applied, is carried out by the Indian Council of Medical Research, New Delhi, the Central Drug Research Institute, Lucknow, and the Central Council for Research in Indian Medicine and Homoeopathy. A number of central institutions and universities are also given financial support for research in the field of reproductive biology.

A high level co-ordination committee for research headed by the Secretary, union Ministry of Health and Family Planning, has been constituted to formulate research policy and devise ways for its implementation.

As a result of family planning work done up to March 1974, 11.5 per cent of the target couples (with wives in the age-group 15-44) have been protected by sterilization, 1.3 per cent by IUD and 2.8 per cent by conventional contraceptives. The result of these efforts has been that an estimated 1.7 crore births had been averted by 31 March 1974.

9 SOCIAL WELFARE

The Directive Principles of State Policy, as enshrined in the Constitution, have a bearing on social welfare. They enjoin the State to ensure that 'the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age and strength', and that 'childhood and youth are protected against exploitation and against moral and material abandonment'.

The social welfare services in the last two decades have sought to serve the development and rehabilitation needs of the weaker sections of society, especially the physically and socially handicapped and women and children from the vulnerable sections of the community in rural and tribal areas and urban slums.

EXPENDITURE ON WELFARE PROGRAMMES

The expenditure on social welfare programmes under the central, state and union territory Plans since the beginning of the First Plan is given in Table 9.1.

TABLE 9.1
EXPENDITURE ON SOCIAL WELFARE

(*Rs crores*)

	First Plan	Second Plan	Third Plan	1966-69 Annual Plans	Fourth Plan	1974-75 (Anticipated)
Centre	1.60	8.49	12.84	7.76	64.41	17.73
States	—	4.95	5.63	3.20	11.07	2.85
Union Territories	—	—	0.93	0.60	0.91	0.45
TOTAL	1.60	13.44	19.40	11.56	76.39	21.03

Fifth Plan Outlay

The Fifth Plan outlay on social welfare programmes under major heads for the centre and centrally-sponsored programmes for states and union territories is given in the Table below:

TABLE 9.2
FIFTH PLAN OUTLAY UNDER MAJOR HEADS

(*Rs crores*)

Head	Outlay
Centre	
Family and Child welfare	3.20
Integrated child development services	140.00
Services for children in need of care and protection	5.00
Functional literacy	8.00
Condensed courses of education for employment and vocational training of adult women	4.00
Socio-economic programmes	4.00
Hostels for working women	5.00
National institutes for the handicapped	3.65
Scholarships, research, training, employment, grant-in-aid to voluntary organisations	5.35
Integrated education	1.50
Employment service	0.50
Central Bureau of Correctional Services	0.25
Central Institute of Research and Training in Public Co-operation	0.65
Social work education and training	6.70
Planning, research, evaluation and monitoring	0.50
Grant-in-aid to voluntary organisations by Central Social Welfare Board and strengthening its field organisation	8.00
Grant-in-aid to voluntary organisations	3.50
Education work for prohibition	0.20
TOTAL (Centre and centrally-sponsored)	200.00
States and Union Territories	29.00
GRAND TOTAL	229.00

SOCIAL WELFARE ORGANISATIONS

Department of Social Welfare

The union Department of Social Welfare, created in 1964, is responsible largely for three important vulnerable groups, *i.e.*, women, children and the physically, mentally and socially handicapped. In the Fifth Plan, special stress will be laid on child development and rehabilitation of the physically and mentally handicapped, particularly on promoting their employment.

Central Social Welfare Board

The Central Social Welfare Board (CSWB), set up in 1953, was registered as a company under the Companies Act on 1 April 1969. The chairman of the Board is appointed by the Government of India from amongst prominent women social workers. Among its main activities are survey of the needs of social welfare organisations, evaluation of their programmes and co-ordination of the assistance given by various central ministries and state governments. The Board also promotes the development of voluntary organisations in areas where they do not exist as well as social welfare activities for the welfare of the family, women, children, the handicapped and assistance in cases of unemployment, under-employment, old age, sickness, disablement and other cases of undeserved want.

State Social Welfare Advisory Boards

Social Welfare Advisory Boards have been set up in all the states and union territories, except Lakshadweep and Chandigarh, to act as the counterparts of CSWB at the state level. They serve as the media for exchange of information between the field and the centre and co-ordinate the welfare activities of the state governments and CSWB to avoid duplication. A major portion of the financial assistance from the CSWB is extended to voluntary institutions through the state boards.

Social Welfare and Rehabilitation Directorate

This Directorate was set up to tackle the problems of destitute women and children displaced from West Pakistan. It runs the Kasturba Niketan Home where such women and children are maintained. At the 19 training-*cum*-production centres, instruction is imparted in such trades as tailoring, embroidery, knitting, weaving, soap and phenyle making. The needy women after training are provided with work at production centres.

Voluntary Organisations

There are now 6,000 voluntary organisations as compared to 2,186 in 1953. The Central Social Welfare Board spent a sum of Rs 35.47 crores on voluntary institutions between 1953 and 1974. It is estimated that about 11 lakh women and children derived benefit from various activities aided by the Board during 1973-74. The grant-in-aid is extended to registered voluntary institutions working for the welfare of women, children, the handicapped, the aged and the infirm. It is also extended for medical and social services and welfare services for non-student youth. Services for cure of leprosy and T.B. patients and services for correctional and non-correctional institutions also get this aid. These grants are given either for a period of one year or a period of five years. The latter type of grants are given generally to institutions of reputed standing. During 1973-74, grants amounting to Rs 37.24 lakhs were released to 3,381 welfare institutions.

WELFARE PROGRAMMES

The various programmes of social welfare fall broadly under six heads, namely, programmes for women, programmes for children, composite programmes for women and children, schemes for maladjusted groups, programmes for physically handicapped persons and social legislation.

Welfare of Women
Committee on Status of Women

A Committee on Status of Women set up in 1971 is examining the constitutional, legal and administrative provisions having a bearing on the social status of women, their education and employment.

Condensed Course of Education for Adult Women

The scheme of Condensed Course of Education for Adult Women was started by the Central Social Welfare Board in 1958 for opening new vistas of employment to deserving and needy women and for creating a band of competent trained workers such as primary school teachers, Balsevikas, nurses, health visitors, *dais* and family planning workers.

Under the scheme, women in the age group 18–30, who have had some schooling, are prepared for middle school, matriculation or equivalent examination within two years. The total number of courses organised from 1958 to March 1974 was 1,442 and the total expenditure incurred about Rs 3.15 crores. These courses enrolled nearly 34,400 women. The programme has been extended to the families of Jawans killed or permanently disabled in action. During 1973-74, 122 courses were in progress and 3,145 women were trained. A sum of Rs 11.16 lakhs was granted to the state boards on this account.

Mahila Mandals

Mahila Mandals are women's organisations running welfare programmes in rural areas. The CSWB gives grants up to 75 per cent of their expenditure. During 1973-74, 444 Mahila Mandals were given grants amounting to Rs 23.45 lakhs.

Working Women's Hostels

To provide accommodation at reasonable rates to working girls in urban areas, the CSWB has sponsored the setting up of working women's hostels. The Board gives grants to voluntary institutions running hostels for working women of lower and middle income groups. During 1973-74, 35 such hostels received Rs 65,000 from the Board.

Border Area Programmes

Welfare services in the border areas of the country have been strengthened with the setting up of welfare centres in the border areas of Arunachal Pradesh, Leh in Jammu and Kashmir, Lahaul and Kinnaur in Himachal Pradesh, Chamoli, Uttar Kashi and Pithoragarh in Uttar Pradesh, Kutch and Banaskantha in Gujarat and Sriganganagar and Jaisalmer in Rajasthan. These centres provide maternity services, infant care, craft training and social education for women. The expenditure on them is shared in the ratio of 2:1 by the Central Social Welfare Board and the respective state governments. There are at present 92 centres in border areas. A sum of Rs 6.19 lakhs was released to 23 border area projects functioning during 1973-74.

Programmes for Children
Nutrition Programmes

To meet the widespread nutritional deficiency among children, especially those belonging to the lower economic strata, the Government of India introduced the Special Nutrition Programme in 1970-71 to provide supplementary nutrition to children in the tribal areas and urban slums (with more than one lakh population). The programme was extended in 1972-73 to cover children up to 6 years of age as well as expectant and nursing mothers. About 38 lakh beneficiaries, including over 3 lakh expectant and nursing mothers in 27,700 feeding centres in urban slums and tribal areas, were provided supplementary nutrition under the programme by 31 March 1974. The programme is functioning in all the states and union territories.

Besides the regular programme, supplementary feeding was extended, as a temporary measure, towards the latter part of 1972-73 to about 2 lakh beneficiaries and during the first half of 1973-74 to 3 lakh beneficiaries in some of the drought and flood affected areas.

In addition to the Special Nutrition Programme, the Department of Social Welfare started another programme in 1970-71 through Balwadis[1] run by voluntary institutions, under which children between 3 and 6 years were provided supplementary nutrition. By 31 March 1974, about 2.29 lakh children were covered under this programme in over 6,000 Balwadis.

Both these programmes were operated in the central sector during the Fourth Five Year Plan. The Special Nutrition Programme was implemented through the state governments and union territories and the Balwadis Nutrition Programme through the Central Social Welfare Board, the Indian Council for Child Welfare, the Bharatiya Adimjati Sevak Sangh and the Harijan Sevak Sangh. In the Fifth Five Year Plan, the programme of supplementary feeding of pre-school children and expectant and nursing mothers has been included in the state sector as a part of the Minimum Needs Programme with a Plan outlay of Rs 48 crores.

Integrated Child Development Services

A scheme of Integrated Child Development Services (ICDS) has been included in the Fifth Plan with an outlay of Rs 140 crores in the centrally-sponsored sector to provide a package of services to pre-school children and expectant and nursing mothers. The package will include, besides supplementary nutrition, health check-up, referral services, immunisation, informal Balwadi education and nutrition and health education. In the ICDS project areas, the nutrition component of the package will come from the separate outlay of Rs 218 crores in the state sector under the Minimum Needs Programme. The programme is to be implemented through state governments and union territory administrations with the maximum possible involvement of voluntary organisations. During 1974-75, a provision of Rs 7.36 crores has been earmarked for ICDS programmes.

Holiday Camps

The scheme of Holiday Camps for Children was started in 1958. The CSWB extends financial assistance to voluntary institutions for organising such camps for children belonging to low income group families. Up to March 1974, 2,200 camps were organised at a cost of Rs 64.42 lakhs.

Foster Care Homes

To provide care for children affected by desertion, divorce, long illness or imprisonment or death of either parent, three Foster Care Homes, one in Madras and two in Bombay, are being run by voluntary institutions. During 1973-74, Rs 90,216 were released by CSWB to these institutions.

Pre-vocational Training

Under this scheme, children in the age group 11–14, who give up studies after primary education for economic or other reasons, are admitted in the pre-vocational training centres. The three-year training course covers general education up to the middle school level and vocational orientation in mechanical and other engineering trades and agriculture. For girls it covers home economics. The scheme is promoted as a centrally-sponsored programme in co-operation with state governments. The entire expenditure is borne by the Government of India. Assistance from UNICEF is received in the form of tools, equipment and other educational aids and UNESCO and ILO offer technical advice.

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[1] Balwadis are agencies providing multifarious services such as nutritional services to pre-school children in the age group 3-5.

There are at present 71 such centres in the country. About 5,100 children attended these centres. Regional centres at Narendrapur (West Bengal), Ludhiana (Punjab), Madras (Tamil Nadu), Secunderabad (Andhra Pradesh) and Karad (Maharashtra) provide in-service training to the staff of pre-vocational training centres. A sum of Rs 41.13 lakhs was spent on the programme during 1973-74.

Balsevika Training Programme

The Indian Council for Child Welfare runs centres for training Balsevikas through its state branches and voluntary organisations. At present there are 27 such centres. They have trained 5,600 Balsevikas between 1956 and 1974 (March).

The Integrated Child Development Services Programme to be introduced in the Fifth Plan will need over 80,000 trained Balsevikas and Anganwadi workers to take charge of the Balwadis and Anganwadis to be organised in the ICDS project areas. The training facilities already available are proposed to be augmented and additional centres started to meet the demand.

The Central Social Welfare Board has organised six training centres at Allahabad, Gandhigram, Indore, Jamia (Delhi), Sriniketan and Vadodara for training workers required for Family and Child Welfare Projects.

Scheme for Services of Children

The scheme for the services of children in need of care and protection, formulated by the Department of Social Welfare, was approved in 1971. The programme covers both institutional as well as non-institutional services.

The Fifth Plan outlay for the scheme is Rs 5 crores, of which Rs 70 lakhs will be spent during 1974-75.

Composite Programmes

Welfare Extension Projects (Urban)

The programme of Welfare Extension Projects (Urban) was launched in 1958 to meet the need of the people in the slums in new industrial areas. They provide a closely knit programme of Balwadis, craft and social education for adult women, educational programmes for youth and maternity and child welfare services. During 1973-74, Rs 2.37 lakhs were released for 37 projects run by voluntary organisations in different states.

Socio-economic Programme

This programme of the Central Social Welfare Board, started in 1958, aims at providing needy women, destitutes and physically handicapped persons with work to supplement the meagre income of their families. Under the programme, the Board has sponsored a number of production units with the support and technical assistance of the Central Small Scale Industries Organisation and regional offices of the All India Handicrafts Board and the All India Handloom Board. From the inception of the programme and up to 31 March 1974, Rs 59.05 lakhs were given to 160 training-*cum*-production and procurement units and Rs 50.80 lakhs were released to institutions running these units benefiting 4,609 women and handicapped persons.

Maladjusted Groups

Social Defence Programmes

Social defence measures are organised mainly within the framework of specific legislations. Such measures include care and protection of neglected and delinquent children, probation services, suppression of immoral traffic and programmes of social and moral hygiene, after-care and prevention of beggary.

Juvenile Delinquents

Legislation on the lines of the Children's Act 1960 (applicable to the union territories) has also been enacted in all the states except Nagaland. The Act provides for juvenile courts and Child Welfare Boards. Destitute, neglected, uncontrollable and delinquent children are apprehended and produced before the juvenile courts and Child Welfare Boards and those requiring care are sent to children's homes, special schools and fit persons' institutions.

Immoral Traffic in Women and Girls

The Suppression of Immoral Traffic in Women and Girls Act, 1956 provides for the suppression of immoral traffic in women and girls in terms of the International Convention signed in New York in 1950. The Act has been extended to almost all the states and union territories. There are at present 33 protective homes and 68 reception centres and district shelters in the country.

A scheme for short-stay homes for the rehabilitation of women and girls facing moral danger was approved during 1969-70. Two pilot projects, one in West Bengal and the other in Madhya Pradesh, are being run by the Association for Moral and Social Hygiene in India for which Rs 1.34 lakhs were provided in 1973-74.

Beggary

Beggary within railway premises was prohibited by law in 1941. Special Acts have been passed by most of the states to prohibit begging in public places. In others, municipal and police Acts provide measures against begging.

To deal effectively with persons who kidnap children for the purpose of exploiting them for begging, the Indian Penal Code (Amendment) Act, 1959 was enacted. This Act makes kidnapping or obtaining custody of a minor and maiming of a minor for the purpose of begging specific offences and provides for deterrent punishment which may extend to life imprisonment where children are maimed.

Probation Services

The Probation of Offenders Act, 1958 aims at placing youthful and first offenders under probation with or without supervision by orders of the trying courts so that they can make adjustments while staying in the open community.

Welfare Services in Prisons

Under the scheme, welfare officers help prisoners in their rehabilitation and maintain liaison between the prisoners and their families.

Central Bureau of Correctional Services

The Central Bureau of Correctional Services, established in 1961, co-ordinates the policies and programmes in the field of social defence. This is being achieved by (i) collection of statistics relating to crime and prison, probation and other services on a national basis; (ii) exchange of information and provision of technical knowledge and assistance; (iii) promotion of research and training of staff; (iv) studies, surveys and experiments where necessary; and (v) dissemination of information through publications. The Bureau also advises the central and state governments on correctional matters.

Welfare of Physically Handicapped

Programmes are being implemented for the education, training and rehabilitation of four categories of handicapped persons, namely, the blind, the deaf, the orthopaedically handicapped and the mentally retarded.

Blind

There are 140 schools and training centres for the blind in the country. The National Centre for the Blind, Dehra Dun, provides integrated services. The model school for blind children attached to the Centre is a secondary school. The Centre also has a training centre for the adult blind, a school for partially sighted children, a workshop for the manufacture of Braille appliances, a sheltered workshop and the central Braille press. The national library for the blind, which also forms part of the Centre, circulates Braille literature in the country. The four teachers' training centres at Delhi, Bombay, Calcutta and Madras train 40-50 teachers for the blind annually.

Deaf

The National Centre for the Deaf at Hyderabad has a Training Centre for the Adult Deaf and a School for Partially Deaf Children, the only one of its kind in the country. The Training Centre imparts training in tailoring, sheet metal work, electrical wiremanship, carpentry, fitting and gas welding.

Orthopaedically Handicapped

A National Institute for the Orthopaedically Handicapped is being set up in Calcutta. The institute will concentrate on research and training of personnel for the rehabilitation of the orthopaedics.

Mentally Retarded

A Model School for Mentally Deficient Children is functioning in Delhi for children in the age group 6–15. The school also provides training in a few crafts.

Other Services

Assistance is given to voluntary organisations serving the handicapped. The total aid given to them in 1973-74 was Rs 20 lakhs. There are 12 special employment exchanges in the country for the physically handicapped. They placed 11,000 persons in employment up to 31 December 1973.

Scholarships and National Awards

The Department of Social Welfare awards scholarships to the blind, deaf and orthopaedically handicapped students for general education and for technical and professional training. About 2,070 scholarships were awarded during 1973-74.

National awards to 20 most efficient physically handicapped employees and eight outstanding employers of the physically handicapped were given in 1974.

RESEARCH AND EVALUATION

The Department of Social Welfare has set up a Planning, Research, Evaluation and Monitoring Division for planning and project formulation, sponsoring of research studies and research publications, documentation, compilation and processing of statistical data, holding of seminars on current topics of social welfare and evaluation and monitoring of the outgoing programmes.

SOCIAL LEGISLATION

Both the central and state governments have enacted a number of social laws covering women and children.

The Child Marriage Restraint Act of 1929 provides for punishment in case of marriage to which a male under 18 years of age or a female under 15 years of age is a party. The Hindu Marriage Act, 1955 lays down that for a fresh marriage neither party should have a spouse living. Among other important social legislations are: the Apprentices Act, 1950; the Reformatory Schools Act, 1897; the Borstal Schools Act; Juvenile Smoking Acts; the Hindu Married Women's Right to Separate Residence and Maintenance Act, 1946; the Hindu Marriage Disabilities Removal Act, 1946; the Hindu Marriage Validating Act, 1949; the Suppression of Immoral Traffic in Women and Girls Act, 1956; the Probation of Offenders Act, 1958 and the Children's Act, 1960 (meant for union territories) and similar Acts passed by the states.

SCHEDULED AND BACKWARD CLASSES

Over one-fifth of India's population comprises the scheduled castes, scheduled tribes and other backward classes.[1] The scheduled castes on account of certain traditional inabilities and the scheduled tribes mainly because of their geographical isolation have not been able to derive in full measure the benefits of planned economic development of the country.

While the Constitution has prescribed certain protective measures and safeguards for these classes, the successive Five Year Plans have regarded their progress as a major objective of national policy.

CONSTITUTIONAL SAFEGUARDS

The Constitution prescribes protection and safeguards for the scheduled castes and tribes and other backward classes either specially or by way of insisting on their general rights as citizens with the object of promoting their educational and economic interests and of removing the social disabilities which the scheduled castes were subjected to. The main safeguards are:

(i) the abolition of 'untouchability' and the forbidding of its practice in any form (art. 17);

(ii) the promotion of their educational and economic interests and their protection from social injustice and all forms of exploitation (art. 46);

(iii) the throwing open by law of Hindu religious institutions of a public character to all classes and sections of Hindus (art. 25);

(iv) the removal of any disability, liability, restriction or condition with regard to access to shops, public restaurants, hotels and places of public entertainment or the use of wells, tanks, bathing ghats, roads and places of public resort maintained wholly or partly out of State funds or dedicated to the use of the general public (art. 15);

(v) the curtailment by law, in the interests of any scheduled tribe, of the general rights of all citizens to move freely, settle in, and acquire property [art. 19(5)];

(vi) the forbidding of any denial of admission to educational institutions maintained by the State or receiving aid out of State funds (art. 29);

(vii) permitting the State to make reservation for the backward classes in public services in case of inadequate representation and requiring the State to consider the claims of the scheduled castes and tribes in the making of appointments to public services (arts. 16 and 335);

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[1] The term 'backward classes' includes scheduled castes, scheduled tribes, denotified, nomadic and semi-nomadic tribes and those whose annual income falls below certain prescribed limits.

(viii) special representation in the Lok Sabha and the state vidhan sabhas to scheduled castes and tribes till 25 January 1980 (arts. 330, 332 and 334);

(ix) the setting up of Tribes Advisory Councils and separate departments in the states and the appointment of a special officer at the centre to promote their welfare and safeguard their interests (arts. 164 and 338 and Fifth Schedule);

(x) special provision for the administration and control of scheduled and tribal areas (art. 244 and Fifth and Sixth Schedules); and

(xi) prohibition of traffic in human beings and forced labour.

LEGISLATION AGAINST UNTOUCHABILITY

The Untouchability (Offences) Act, 1955 provides penalties for preventing a person, on the ground of untouchability, from entering a place of public worship and offering prayers or taking water from a sacred tank, well or spring. Penalties are also provided for enforcing any kind of social disability such as denying access to any shop, restaurant, public hospital or educational institution, hotel or any place of public entertainment; or denying the use of any road, river, well, tank, water tap, bathing ghat, cremation ground, sanitary convenience, dharamshala, sarai or musafirkhana or utensils kept in such institutions and hotels and restaurants. The Act prescribes penalties for enforcing occupational, professional or trade disabilities, or disabilities in the matter of enjoyment of any benefit under a charitable trust, in the construction or occupation of any residential premises in any locality or in the observance of any social or religious usage or ceremony.

The Act also lays down penalties for refusal to sell goods or render services to a person on the ground of untouchability; for molesting, injuring or annoying a person, or organising a boycott of, or taking any part in the ex-communication of a person who has exercised the rights accruing to him as a result of the abolition of untouchability.

Higher penalties have been prescribed for subsequent offences. For purposes of awarding punishment, incitement or abetment of the offence has been treated in the same manner as the commission of the offence. The offences under this Act are cognisable and the onus of proving innocence is on the accused.

The Act is administered by state governments but its implementation is reviewed from time to time by the central government also.

Since 1954 the Government of India have been giving financial support for measures to eradicate untouchability. Both official and non-official agencies are being utilised for this purpose and efforts are made to enlist public co-operation. Most of the states have appointed small committees to enforce the provisions of the Untouchability (Offences) Act. Publicity media such as books, pamphlets, handbills and audio-visual aids have also been pressed into service.

POPULATION

According to the 1971 census, the population of the scheduled castes and scheduled tribes was 7,99,95,896 and 3,80,15,162 respectively. Table 9.3 shows their state-wise distribution.

REPRESENTATION IN LEGISLATURES

Under articles 330 and 332 of the Constitution, seats are reserved for the scheduled castes and scheduled tribes in the Lok Sabha and state vidhan sabhas in proportion to their population. This concession was initially for a period of 10 years from the commencement of the Constitution but has been extended, through amendments, up to 25

January 1980. Parliamentary Acts provide for such reservations in the union territories having legislatures. Table 9.4 gives details of their representation in the Lok Sabha and vidhan sabhas. There is no reservation of seats in the Rajya Sabha and state vidhan parishads.

Following the introduction of Panchayati Raj, safeguards have been provided for proper representation of the members of the scheduled castes and tribes by reserving seats for them in the gram panchayats and other local bodies.

TABLE 9.3
POPULATION OF SCHEDULED CASTES AND TRIBES (1971 CENSUS)

	Scheduled castes	Scheduled tribes
INDIA	**7,99,95,896**	**3,80,15,162**
States		
Andhra Pradesh	57,74,548	16,57,657
Assam	9,12,557	16,06,648
Bihar	79,50,652	49,32,767
Gujarat	18,25,432	37,34,422
Haryana	18,95,933	—
Himachal Pradesh	7,69,572	1,41,610
Jammu & Kashmir	3,81,277	—
Karnataka	38,50,034	2,31,268
Kerala	17,72,168	2,69,356
Madhya Pradesh	54,53,690	83,87,403
Maharashtra	30,25,761	29,54,249
Manipur	16,376	3,34,466
Meghalaya	3,887	8,14,230
Nagaland	—	4,57,602
Orissa	33,10,854	50,71,937
Punjab	33,48,217	—
Rajasthan	40,75,580	31,25,506
Tamil Nadu	73,15,595	3,11,515
Tripura	1,92,860	4,50,544
Uttar Pradesh	1,85,48,916	1,98,565
West Bengal	88,16,028	25,32,969
Union Territories		
Andaman & Nicobar Islands	—	18,102
Arunachal Pradesh	339	3,69,408
Chandigarh	29,073	—
Dadra & Nagar Haveli	1,332	64,445
Delhi	6,35,698	—
Goa, Daman & Diu	16,514	7,654
Lakshadweep	—	29,540
Mizoram	82	3,13,299
Pondicherry	72,921	—

RESERVATION IN THE SERVICES

The manner in which the State carries out its obligation to reserve posts for the scheduled castes and tribes in the public services in case of inadequate representation and to consider their claims consistent with the maintenance of efficiency of administration has been left outside the purview of obligatory consultation with the Public Service Commission [art. 320 (4)].

For the scheduled castes, reservation is 15 per cent of the vacancies for which recruitment is made by open competition on an all-India basis and 16⅔ per cent of the vacancies to which recruitment is made otherwise. For the scheduled tribes, the reservation is 7½ per cent in both cases. Reservations in direct recruitment to class III and IV posts, which normally attract candidates from a locality or region, are fixed in proportion to the population of the scheduled castes and tribes in the respective states and union territories.

TABLE 9.4
RESERVATION OF SEATS IN LEGISLATURES

	Lok Sabha			Vidhan Sabha		
	Total number of seats	Seats reserved for scheduled castes	Seats reserved for scheduled tribes	Total number of seats	Seats reserved for scheduled castes	Seats reserved for scheduled tribes
States						
Andhra Pradesh	42	6	2	294	39	11
Assam	14	1	2	114	8	14[1]
Bihar	53	7	5	318	45	29
Gujarat	26	2	4	182	12	25
Haryana	9	2	—	81	15	—
Himachal Pradesh	4	1	—	68	15	3
Jammu & Kashmir	6	—	—	75[2]	6	—
Karnataka	28	4	—	224	29	2
Kerala	20	2	—	140	12	2
Madhya Pradesh	40	5	8	320	42	64
Maharashtra	48	3	3	288	17	17
Manipur	2	—	1	60	1	19
Meghalaya	2	—	2	60	—	50
Nagaland	1	—	—	60	—	—
Orissa	21	3	5	147	22	34
Rajasthan	23	4	3	184	31	21
Punjab	13	3	—	104	23	—
Tamil Nadu	39	7	—	234	42	2
Tripura	2	—	1	60	6	19
Uttar Pradesh	85	18	—	425	89	1
West Bengal	40	8	2	280	55	16
Union Territories						
Andaman & Nicobar Islands	1	—	—	—	—	—
Arunachal Pradesh	1	—	1	—	—	—
Chandigarh	1	—	—	—	—	—
Dadra & Nagar Haveli	1	—	1	—	—	—
Delhi	7	1	—	56[3]	7	—
Goa, Daman & Diu	2	—	—	30	—	—
Lakshadweep	1	—	1	—	—	—
Mizoram	1	—	1	30	—	—
Pondicherry	1	—	—	30	5	—
TOTAL	534	77	42	3,864	521	329

Note: The allocation and reservation of seats is on the basis of the Delimitation Commission's recommendation up to 26 July 1974.

[1] Four seats are reserved for two autonomous districts (North Cachar Hills and Mikir Hills).

[2] Excluding 25 seats in the territory held by Pakistan.

[3] Metropolitan Council.

Reservation is also made at 15 per cent of the vacancies for the scheduled castes and 7½ per cent for the scheduled tribes in promotions on the results of the competitive examinations limited to department candidates in classes II, III and IV and in promotions by selection in classes III and IV in grades or services to which direct recruitment, if any, does not exceed 50 per cent. Reservation has also been provided for scheduled castes and scheduled tribes since 27 November 1972 in promotion on the basis of seniority subject to fitness in class I, II, III and IV posts in grades or services to which direct recruitment, if any, does not exceed 50 per cent.

In the case of promotion by selection from class III to class II, within class II, and from class II to the lowest rung or category in class I, such employees, unless they are found unfit, are given one higher grading in categorisation on merit; the concession is confined to 25 per cent of the total vacancies in a grade in a year. In promotions by selection within class I to posts carrying an ultimate salary of Rs 2,000 p.m. or less, the scheduled castes and tribes officers, who are senior enough in the zone of consideration for promotion and are within the number of vacancies for which the select list has to be drawn, are included in that list provided they are not considered unfit for promotion.

To facilitate their adequate representation, concessions such as, (i) relaxation in age limit, (ii) relaxation in the standard of suitability, and (iii) selection provided they are not found unfit for the posts, have been provided for. If no suitable scheduled caste or scheduled tribe candidates are available for the reserved posts, they are treated as unreserved and an equal number of reservations are carried forward to three recruitment years. In no recruitment year, however, the number of reserved vacancies is to exceed 50 per cent of the total vacancies.

To give effect to the reservations, model rosters of 40 points each have been prescribed for recruitment by open competition and otherwise on an all-India basis. If the vacancies in a service or cadre are too few for the purpose, all corresponding posts are grouped together. Annual statements are required to be submitted by the recruiting authorities for scrutiny by the government. For ensuring implementation of the special representation orders, liaison officers have been appointed in different ministries of the union government. A high power committee, with Prime Minister as the chairman, has been set up to review the progress of employment of the scheduled castes and scheduled tribes under the Government of India, the union territories and public sector undertakings.

State governments have also framed rules for the reservation of posts for these classes and taken steps to increase their representation in the state services.

The number of officers under the central government belonging to the scheduled castes and scheduled tribes in various grades as on 1 January 1972 was: class I—970; class II—2,046; class III—1,67,866 and class IV (excluding sweepers) 2,62,569. Their number in some of the all India services as on 1 January 1973 was: IAS—329, IPS—150 and Indian Forest Service—51.

ADMINISTRATION OF SCHEDULED AND TRIBAL AREAS

Some areas have been 'scheduled' in the States of Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, Maharashtra, Orissa and Rajasthan under article 244 and the Fifth Schedule to the Constitution. Governors of the respective states submit a report annually to the President on the administration of the 'scheduled' areas in their states.

The tribal areas in the States of Assam and Meghalaya and the Union Territory of Mizoram are administered subject to the provisions of the Sixth Schedule to the Constitution. Under the Schedule, they are divided into autonomous districts. There are eight such districts, namely, North Cachar Hills and Mikir Hills districts in Assam, United Khasi-Jaintia Hills, Jowai and Garo Hills districts in Meghalaya and Chakma, Lakher and Pawi districts in Mizoram. Each autonomous district has a district council consisting of not more than 30 members of whom not more than four can be nominated and the rest are to be elected on the basis of adult suffrage. The councils are vested with certain administrative, legislative and judicial powers.

WELFARE AND ADVISORY AGENCIES

A special officer designated as the Commissioner for Scheduled Castes and Scheduled Tribes investigates all matters relating to the safeguards for them provided under the Constitution and reports to the President on the working of the safeguards.

The organisation of the Director General, Backward Classes Welfare in the union Ministry of Home Affairs is responsible for the formulation and implementation of schemes for the welfare of backward classes and maintains liaison with the states.

Parliamentary Committees

The Government of India set up three Parliamentary Committees, the first in 1968, the second in 1971 and the third in 1973, to examine the implementation of the Constitutional safeguards for the welfare of the scheduled castes and scheduled tribes.

Welfare Departments in States

The state governments and union territory administrations have separate departments to look after the welfare of the scheduled castes and scheduled tribes and other backward classes. The administrative set-up varies from state to state. In Bihar, Madhya Pradesh and Orissa, separate ministers have been appointed to look after tribal welfare as prescribed in article 164 of the Constitution. Some other states have set up committees of members of state legislatures on the pattern of the Parliamentary committee at the centre.

Voluntary Organisations

A number of voluntary organisations also promote the welfare of the scheduled castes. Important organisations of all-India character are: All-India Harijan Sewak Sangh, Delhi; Bharatiya Depressed Classes League, New Delhi; Iswar Saran Ashram, Allahabad; Indian Red Cross Society, New Delhi; Hind Sweepers Sewak Sangh, New Delhi and Ramakrishna Mission, Narendrapur, West Bengal.

Important voluntary organisations for the scheduled tribes are: Bharatiya Adimjati Sewak Sangh, New Delhi; Indian Council for Child Welfare, New Delhi; Andhra Rashtra Adimjati Sewak Sangh, Nellore; Ramakrishna Mission, Cherrapunji, Ranchi, Puri, Silchar, Along and Shillong; Thakkar Bapa Ashram, Nimakhandi, Orissa and the Indian Red Cross Society, New Delhi.

The Servants of India Society, Poona, and All-India Backward Classes Federation, Delhi, look after the interests of the backward classes, while Bharatiya Ghumantu Jan (Khanabadosh) Sewak Sangh, Delhi, serves the nomadic and semi-nomadic tribes.

The Government of India provide grants to national voluntary organisations against specific schemes for the welfare of backward classes.

WELFARE SCHEMES

Expenditure during the Plans

The welfare of scheduled castes and scheduled tribes is given special attention by both the central and state governments. Special programmes for their welfare have been undertaken in the successive Five Year Plans and the size of investment on these special programmes has been increasing from Plan to Plan as shown in Table 9.5.

TABLE 9.5 EXPENDITURE DURING THE PLANS

(Rs crores)

Plan	Period	Expenditure
First	1951-56	30.04
Second	1956-61	79.41
Third	1961-66	100.40
Annual Plans	1966-69	68.50
Fourth	1969-74	172.70 (anticipated)

In addition, state governments have also been spending a sizeable amount from their non-Plan budgets on the welfare of these classes.

New Strategy

In the Fifth Plan, a new strategy has been adopted for the uplift of the scheduled castes and scheduled tribes. Greater emphasis will be placed on the role of the general sector for providing a major thrust to the development of backward classes. Programmes in the backward classes sector will be of a catalytic nature and will be supplemental to the general sector programmes.

The scheduled castes will be largely benefited by the Minimum Needs Programme. In this programme, priority will be given to the scheduled castes and scheduled tribes and for this purpose general norms will be relaxed for meeting the special requirements of the backward classes and tribal areas.

An outlay of Rs 255 crores has been made for the backward classes sector; of this Rs 85 crores will be in the central sector and Rs 170 crores in the state sector in the Fifth Plan.

Plan Programmes

The Plan programmes for the welfare of backward classes fall into three main groups: centrally-operated, centrally-sponsored and state sector. Important schemes being implemented under these categories are briefly described below.

Central Schemes

Training and Coaching Centres

With a view to helping the scheduled castes and scheduled tribes to secure employment, two schemes , namely, pre-examination training centres and coaching-*cum*-guidance centres, have been started. Under the first scheme, there are four centres located at Allahabad, Jaipur, Madras and Patiala which impart coaching to scheduled castes and scheduled tribes for all-India services examinations conducted by the Union Public Service Commission. Centres for imparting training to candidates for state services examinations have also been set up in the States of Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh. Orissa, Uttar Pradesh, West Bengal and Union Territory of Delhi. Two centres for imparting coaching for engineering services examinations have also been set up at Allahabad and Tiruchirapalli.

Four coaching-*cum*-guidance centres, one each at the employment exchanges in Delhi, Kanpur, Jabalpur and Madras have been set up to conduct courses of 'confidence building and interview techniques' for scheduled caste and scheduled tribe applicants on the live registers of the concerned employment exchanges.

Post-Matric Scholarships

Under this scheme, all eligible students belonging to scheduled tribes are awarded scholarships without merit test and in the case of scheduled castes a liberal means test which denies scholarships to those coming from families having monthly income exceeding Rs 500 is applicable.

Girls Hostels for Scheduled Castes and Tribes

Under the scheme, financial assistance is given to state and union territory governments for the construction of new hostels and to expand existing ones at any place where the facilities for girls belonging to these classes are inadequate. A sum of Rs 1.96 crores was spent on the scheme during the Fourth Plan.

Tribal Development Blocks

The tribal development blocks scheme aims at the economic development of areas predominantly inhabited by the tribal people. There are at present 504 tribal development blocks in the country.

Assistance to Co-operatives

As the co-operative movement has a vital role in the elimination of the exploiters of the weaker sections, especially in the tribal areas, a net-work of co-operative societies—forest labour, multi-purpose, labour contract and construction, and marketing societies and apex co-operative organisations—has been organised with government assistance. A co-ordinating committee of the tribal apex co-operative organisations has been set up.

Tribal Research Institutes

There are at present 11 Tribal Research Institutes in the country. To co-ordinate their activities, a 30-member Central Research Advisory Council has been set up. The Council provides guidance on policy formulation and serves as a clearing house for the Institutes, central and state governments and other research organisations connected with tribal problems.

Overseas Scholarships

Scholarships to deserving scheduled caste and scheduled tribe students for studies in foreign countries are being awarded by the union government since 1953. The number of such scholarships every year is 21— 11 for scheduled castes, six for scheduled tribes, one for denotified nomadic and semi-nomadic tribes and three for other backward classes. Tourist class sea passage is provided to students who receive foreign scholarships from other sources without travel grants.

Also, 17½ per cent of merit scholarships granted by the centre to students of the lower income groups for studies in the institutions which are members of the Indian Public Schools Conference are reserved for backward communities. Some of the state governments as also some public schools offer similar scholarships.

State Sector Schemes

The state sector programme for which central assistance is given in the shape of block grants and loans can be divided into three main groups, namely, education, economic uplift and health, housing and other schemes. The particulars of the schemes are:

Education

(i) Pre-matric scholarships and stipends
(ii) Exemption from tuition and examination fees
(iii) Provision of educational equipments
(iv) Provision of mid-day meals
(v) Setting up of Ashram schools (basic type residential schools)
(vi) Grants for the construction of school and hostel buildings

Economic Development

(i) Provision of land and irrigation
(ii) Supply of bullocks, agricultural implements, seeds and manure
(iii) Development of cottage industries
(iv) Development of communications
(v) Co-operation
(vi) Colonisation of shifting cultivators
(vii) Supply of poultry, sheep, pigs and goats

Health, Housing and Others

(i) Medical facilities
(ii) Drinking water supply schemes
(iii) Provision of houses and house-sites
(iv) Provision of legal aid
(v) Grants to non-official agencies working at state level

RELIEF AND REHABILITATION

Relief and Resettlement in the Western Border Areas

During the course of hostilities between India and Pakistan in December 1971, over eight lakh Indian nationals living in the border areas of Jammu and Kashmir, Punjab and Rajasthan had to migrate to safer places. Besides relief assistance, financial assistance was also provided to them for the reconstruction of their houses and for the resumption of their normal means of livelihood. Most of these persons have now returned to their homes. The central government spent a sum of Rs 35 crores for providing relief and rehabilitation assistance to the affected persons.

The rehabilitation of about 18,000 persons, who were displaced from the Chhamb area in Jammu and Kashmir as a result of the delineation of the line of actual control, is being speeded up.

About 58,000 Pakistan nationals who had crossed over to Rajasthan and Gujarat at the end of the conflict are being maintained in relief camps in these states pending their return.

Repatriates from Sri Lanka

Under the Indo-Ceylon Agreement of 1964, 5.25 lakh persons of Indian origin together with the natural increase are to be repatriated to India over a period of 15 years. Over 1.36 lakhs of persons had been repatriated till May 1974. The repatriates are being resettled either through employment in plantations or by grant of financial assistance for agricultural and non-agricultural occupations.

Under an agreement concluded between India and Sri Lanka in January 1974, the Government of India have agreed to accept repatriation of an additional 75,000 persons of Indian origin together with the natural increase after the repatriation of 5.25 lakh persons together with the natural increase is completed.

Prime Minister's National Relief Fund

The Prime Minister's National Relief Fund was started in 1947. Up to the end of March 1974, public contribution to the fund amounted to about Rs 6.43 crores. Over Rs 5.79 crores were utilised in providing relief to people affected by natural calamities such as earthquakes, floods, cyclones, droughts, famines and fire. Relief was also given in the early stages to displaced persons from Pakistan.

10 MASS COMMUNICATION

The term mass communication stands for dissemination of information, ideas and entertainment by the use of communication media. The media include those which use modern technologies, such as, the radio, the film, the television, the press, publications and advertising. In some developing societies, they co-exist with important traditional or conventional media, such as, folk dance, drama and puppetry.

RADIO

Radio broadcasts started in India in 1927 with two privately-owned transmitters at Bombay and Calcutta. The Government of India took them over in 1930 and the Posts and Telegraphs Department started operating them under the name of Indian Broadcasting Service. In 1936, the name of the Service was changed to All India Radio (also known as 'Akashvani' since 1957) and it was made a separate department. AIR is now the biggest media organisation of the Ministry of Information and Broadcasting and its programmes are received by 1.40 crore radio receiver sets[1] in India.

Broadcasting Network and Programme Composition

All India Radio's network consisted of six radio stations at the time of Independence in 1947. Now there are 70 stations[2], four auxiliary studio centres and two Vividh Bharati/commercial centres, which cover all the important cultural and linguistic regions of the country. Their 'home service' programmes are transmitted for 2.70 lakh hours every year (more than 740 hours per day), excluding 1.33 lakh hours of Vividh Bharati programmes. There are also 'external service' transmissions, which present programmes in 16 foreign and 8 Indian languages for 53 hours daily to project India's viewpoint on important issues to listeners abroad and also project the cultural heritage of the country, its art, literature, music and socio-economic advance under the five year plans. The programmes are beamed from 141 transmitters, of which 109 are medium-wave transmitters.

In the 'home service' programmes, 42.2 per cent of broadcasting time is claimed by music and 22.5 per cent by the news. Eight per cent of the time is allotted to talks and discussions, followed by 6.2 per cent for rural programmes. The principal ingredients of 'home service' programmes and their duration are given in Table 10.2.

Music

Programmes of music are broadcast from all stations of AIR and consist of classical, light, folk and film music. Classical music,

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[1] For circle-wise and receiver-type break-up, see Table 10.1.

[2] The 70 radio stations, grouped into five zones, are the following: *North zone*: Ajmer, Allahabad, Aligarh, Bikaner, Delhi, Gorakhpur, Jaipur, Jodhpur, Jullundur, Lucknow, Mathura, Rampur, Simla, Udaipur and Varanasi; *East zone*: Agartala, Aizawl, Bhagalpur, Calcutta, Cuttack, Dibrugarh, Gauhati, Imphal, Jeypore, Kohima, Kurseong, Ranchi, Pasighat, Patna, Sambalpur, Shillong, Silchar, Siliguri, Tawang and Tezu; *West zone*: Ahmadabad, Bhopal, Bhuj, Bombay, Gwalior, Indore, Jabalpur, Nagpur, Panaji, Parbhani, Poona, Raipur, Rajkot and Sangli; *South zone*: Alleppey, Bangalore, Bhadravati, Calicut, Coimbatore, Cuddapah, Dharwar, Gulbarga, Hyderabad, Madras, Pondicherry, Port Blair, Tiruchirappalli, Tirunelveli, Trichur, Trivandrum, Vijayawada and Visakhapatnam; and *Kashmir zone*: Jammu, Leh and Srinagar

TABLE 10.1

NUMBER OF BROADCAST RECEIVER LICENCES[1]

Name of circle		Domestic	Concessional				Commercial			Possession		Demon-stration	Total
			Cheap	Com-munity	School	Hospital	Urban	Rural	Low cost	Dealer	Non-dealer		
Andhra Pradesh	..	8,05,843	2,28,713	4,114	1,991	534	5,547	938	448	2,031	266	597	10,51,022
Bihar	..	4,27,191	81,935	745	968	284	3,069	734	245	1,493	98	282	5,17,044
Delhi	..	4,18,983	2,45,956	92	263	2	12,772	—	—	3,450	55	257	6,81,830
Gujarat	..	9,88,415	2,39,748	5,476	598	79	9,165	2,131	2,597	3,304	124	272	12,51,909
Jammu & Kashmir	..	1,49,269	82,220	1,992	84	14	1,262	—	—	501	3	71	2,35,416
Karnataka	..	8,90,437	1,12,761	6,766	1,978	29	8,893	2,839	392	2,015	288	268	10,26,666
Kerala	..	5,15,187	37,315	3,295	1,106	107	4,790	5,362	118	1,423	69	141	5,68,913
Madhya Pradesh	..	4,27,576	83,533	1,127	263	70	5,910	839	448	1,807	72	321	5,21,966
Maharashtra	..	18,96,897	1,69,117	16,260	2,057	218	16,363	4,028	811	4,397	918	513	21,11,579
North-eastern	..	2,05,035	13,571	3,677	186	25	1,137	332	14	644	21	230	2,24,872
Orissa	..	1,26,994	16,758	1,932	335	41	1,149	—	—	411	33	150	1,47,803
Punjab	..	7,08,298	5,92,522	1,499	923	287	6,170	2,483	6,338	4,341	271	459	13,25,591
Rajasthan	..	3,81,321	1,29,905	1,773	1,448	245	4,786	1,470	2,502	1,389	186	472	5,25,497
Tamil Nadu	..	12,44,623	1,23,303	17,242	3,043	176	10,197	2,637	255	3,097	831	529	14,05,933
Uttar Pradesh	..	8,30,615	4,03,099	3,225	1,427	307	7,710	1,627	3,555	4,468	355	284	12,56,672
West Bengal	..	6,06,468	4,85,786	921	382	3	4,408	1,195	564	3,107	126	302	11,03,262
Army Postal	..	71,435	5,644	—	—	229	310	—	—	308	15	3	77,944
TOTAL	..	1,06,94,587	30,51,886	70,136	17,052	2,650	1,05,638	26,615	18,287	38,186	3,731	5,151	1,40,33,919

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[1] As on 31 December 1973.

TABLE 10.2
Composition and duration of Home Service Programmes (1973)

Type of programme	Duration		Approximate percentage
	Hrs.	Mts.	
Classical vocal	22,255	48	8.2
Classical instrumental	21,039	51	7.8
Folk vocal	7,790	58	2.9
Folk instrumental	244	01	0.1
Light vocal	25,869	48	9.6
Light instrumental	2,760	29	1.0
Devotional music	12,986	34	4.8
Film music	14,354	34	5.3
Western music	6,654	23	2.5
Talks, discussions, etc.	21,614	16	8.0
Drama	10,541	01	4.0
News	60,883	34	22.5
Religious	372	32	0.1
Children	3,610	25	1.3
Women	3,805	29	1.4
Rural	16,682	46	6.2
Industrial	3,975	40	1.5
Armed forces	4,835	05	1.8
Tribal areas	5,089	49	1.9
Educational	6,603	35	2.4
Publicity	5,027	23	1.8
Others	13,349	16	4.9
TOTAL	2,70,347	17	100.0
Vividh Bharati	1,33,240	56	
GRAND TOTAL	4,03,588	13	

which was largely a preserve of some 'gharanas' and princely courts in the pre-broadcasting period, has now become 'democratized' through AIR programmes and has evoked popular interest in forms and styles of India's ancient musical tradition.

Classical music programmes include a weekly national programme of music, started in 1952, which presents to a nation-wide audience the leading exponents of the art. A festival of music, known as Radio Sangeet Sammelan, is also organised every year. Renowned artistes of both vocal and instrumental music, belonging to the Hindustani and Karnatak schools, participate in the concerts. For the first time in 1973, Radio Sangeet Sammelan programme was relayed over the entire AIR network and its video tapes were televised from Amritsar, Bombay, Delhi, Poona and Srinagar. The Sammelan is preceded by a music competition with the objective of discovering new talent from among the 16-24 age group musicians. In April 1974, a programme of classical music by young musicians was started. It consists of concerts in Hindustani music which are broadcast from Delhi every Tuesday and are relayed by other stations of Northern India, while concerts of Karnatak music are broadcast from Madras and are relayed by other stations of Southern India.

A national programme of regional music was also started in January 1973, which brings to the listeners the rich tradition of folk and light music of the various regions of the country. The programme is broadcast on the first Thursday of every month from Delhi and is relayed by all stations of AIR.

The national orchestra, known as Vadya Vrinda, was started in 1952 and a sizeable repertoire of compositions based on traditional ragas and tunes has been built. Eight compositions were added during 1973.

Plays and Features Outstanding plays from Indian languages are broadcast on the fourth Thursday of every month in the national programme of plays. In 1973, a dramatised serial of the great epic 'Ramcharit Manas' was presented in twelve parts. The national programme of features, which was started in 1956, presents various facets of economic development as also of cultural and social life. The original script may be in English or any Indian language, but this is invariably translated into regional languages and is broadcast from all the regional stations.

News and Current Affairs The News Services Division of AIR attempts comprehensive and speedy coverage of news and views through its news bulletins, commentaries and discussions on current affairs. Besides noticing major trends in political, economic, social, cultural and scientific fields, it gives adequate attention to parliamentary proceedings, rural developments and sports activities. News is broadcast daily through 240 bulletins in 18 Indian and 23 foreign languages and 34 local dialects. Of these, 82 bulletins are beamed in the 'home service' from Delhi and relayed by most of the other AIR stations, 98 regional bulletins are broadcast from regional stations and 60 bulletins are beamed to listeners abroad. The regional bulletins were introduced in April 1953.

When Parliament is in session, daily commentary in English as well as Hindi reviews the day's proceedings in the Houses. Commentaries by specialists in various fields and scripts from AIR's foreign correspondents are broadcast in English and Hindi in the programmes called 'spotlight' and 'Samayiki' respectively. In the 'current affairs' programme every Sunday, specialists take up live issues for a threadbare discussion. Eye-witness accounts, interviews with important persons and the reactions of the common man to the happenings around him are presented through radio newsreels in both English and Hindi.

AIR gathers its news by subscribing to the news agencies and by monitoring major broadcasting stations of the world. Nearly a third of news coverage is accounted for by AIR's own corps of about 60 correspondents in India and abroad. Parliamentary proceedings are covered by the reporting teams in Delhi. In addition, there are 100 part-time correspondents in India and abroad to supplement the news coverage by full-time correspondents.

External Services Programmes for listeners abroad consist of news, daily commentary and press review, talks, discussions and music, mainly light classical, light, film and folk. These are broadcast in two major services: general overseas service and the Urdu service. The former is beamed for 9 hours and 45 minutes daily to East, North-East and South-East Asia, Australia, New Zealand, East, West and North Africa, while the latter is presented for 9 hours and 30 minutes daily to Urdu-loving listeners of the Indian sub-continent. The West Asian service broadcasts programmes in Arabic, Dari, Persian and Pushtu. East African countries are served by the Swahili service, while the French service is directed to North and West Africa. Other area-oriented services are in Burmese, Chinese, Indonesian, Nepali, Russian, Sinhala, Thai and Tibetan languages.

Composite programmes comprising news, press reviews, commentaries, talks, music and features are broadcast in Indian languages—Bengali, Gujarati, Hindi, Konkani, Punjabi, Sindhi, Tamil and Urdu. The object of these programmes is to entertain Indians abroad and keep them in touch with the events and developments in India.

AIR supplies taped programmes to broadcasting organisations of various foreign countries, including 17 countries with which India has entered into cultural agreements. They use these programmes for their home audiences with a view to acquainting them with the cultural and social aspects of life in India. Visiting correspondents of foreign broadcasting organisations are provided with studio and recording facilities.

Vividh Bharati and Commercial Service

Popular entertainment programmes are broadcast mostly on the medium-wave for 12 hours and 20 minutes daily from 36 centres in the Vividh Bharati service, which was started on 3 October 1957. Film music, humorous skits, short plays and features are presented in these programmes. Leading Indian film personalities present their favourite songs and recount their experiences in 'Jayamala' programme, which is broadcast for the Armed Forces.

Commercial advertising on the radio, which was introduced on 1 November 1967 from Bombay-Nagpur on an experimental basis, was gradually extended to other centres. At present, it is broadcast from 18 Vividh Bharati centres and claims about 10 per cent of the total daily broadcasting time. The advertisements are accepted in any language as tape-recorded 'spots' of 15 seconds or 30 seconds duration. Sponsored programmes were introduced in May 1970. In 1972-73, the revenue from commercial advertising amounted to Rs 4.69 crores.

Programmes for Special Audiences and Occasions

These include programmes for the Armed Forces, women and children, the youth, sportsmen and students, rural and tribal people and industrial workers. Fourteen stations broadcast daily programmes for the Armed Forces, while 42 stations present programmes twice or thrice a week in regional languages for women with the objective of providing entertainment and imparting information on household topics. Intensive family planning campaigns, which were started in 1967 with 22 family planning programme units at various stations, are now planned by 36 units. 27,500 programmes on this subject were broadcast in 1973-74. Similarly, almost all the stations broadcast programmes for the children twice or thrice a week in Indian languages. Such programmes are also broadcast in a few foreign languages like Burmese, Nepali and Tibetan, while the Bangalore, Bombay and Madras stations broadcast a 30-minute weekly programme in English for the children.

Programmes for rural areas are planned and produced by farm and home units, which have been located at 31 stations. Keeping in view the pattern of development in particular areas, programmes pertain to agriculture, animal husbandry, co-operation, cottage industries and allied subjects. In addition to the daily half-hour hard core programme, many stations broadcast an agricultural news bulletin of 5 to 10 minutes' duration.

Programmes consisting of both music and spoken word are put out in more than 100 tribal dialects for the Adivasis from 19 stations. For the industrial workers, 23 stations present special programmes of 20 to 35 minutes' duration on 4-6 days a week.

Special occasions like the Republic Day, Independence Day, visits of foreign dignitaries or the visits of Indian dignitaries abroad and anniversaries are extensively noticed by presenting special programmes on the national hook-up of AIR.

'Yuva Vani', Sports and School Broadcasts

Programmes for the youth or 'Yuva Vani' are broadcast from Calcutta, Delhi, Hyderabad and Jammu stations. Yuva Vani was started from Delhi in 1969, from Calcutta and Hyderabad in 1970, and from Jammu in 1974. In this service, four to six hours of programmes are broadcast daily on separate low-power transmitters. It provides a forum to the youth between the ages of 15 and 25 years, who present their viewpoint by participating in a wide range of programmes—talks, discussions, interviews, plays, features and music.

In addition, 45 stations broadcast programmes of varying duration and frequency in different languages for the youth.

Sports events in India and abroad are covered by reviews, running commentaries and voice despatches. Four metropolitan centres of Bombay, Calcutta, Delhi and Madras present a daily sports service of 95 minutes that covers all the important sports events.

For students in schools and universities, 28 AIR stations relay programmes in regional languages which are based on school curriculum, while 24 stations broadcast academic programmes in English as well as regional languages for the university students.

Audience Research

The Audience Research Unit undertakes regular surveys and analyses of listeners' reactions to various types of programmes broadcast on the AIR network. It provides data for determining the rates of 'spots' and sponsored programmes in the commercial service, and also surveys the reception quality of various stations.

Transcription and Programme Exchange

The programme exchange and transcription service of AIR helps different stations to exchange outstanding programmes, transcribes the speeches of eminent personalities and maintains the Library of Sound Archives.

The collection consists of tape-recordings, discs and stampers of a large variety of programmes. The Archives' most valuable possession consists of over 51 hours of recorded voice of Gandhiji. Nearly 3,000 tape-recordings of about 800 hours' duration of Jawaharlal Nehru's speeches and the voice tapes of Tagore, Netaji, Rajagopalachari and Sardar Patel have been preserved.

Among other valuable items preserved are: (i) recitation from the Vedas in Sanskrit in the traditional style; (ii) poetry recitation by eminent poets in Hindi and other languages; (iii) recitals by old masters of music, both Hindustani and Karnatak; (iv) selected items of music by eminent musicians representing different 'gharanas'; and (v) representative pieces of folk music, devotional music and stage songs. Some of the recordings of old masters of music have been commercially released. Royalty received on these is paid to the families of these musicians.

Programme Journals

All India Radio brings out eight programme journals. These are: Akashvani (English), Akashvani (Hindi) and Awaz (Urdu) published from Delhi; Betar Jagat (Bengali) and Akashi (Assamese) published from Calcutta; Vanoli (Tamil) and Vani (Telugu) published from Madras and Nabhovani (Gujarati) published from Ahmadabad. Akashvani (English) is a weekly, while the rest of the journals are fortnightlies. AIR also brings out eleven other journals intended for the overseas listeners, one each in Arabic, Burmese, Chinese, English, French, Indonesian, Nepali, Persian, Pushtu, Swahili and Tibetan. The journal in English, 'India Calling', is a monthly; all others are quarterlies.

TELEVISION

The first television centre was commissioned at Delhi in 1959. As a UNESCO-aided project, its purpose was to gauge the effectiveness of television in community development and adult education. Transmission was limited to a 24-km radius and tele-clubs were organised at twenty community centres, where viewers engaged themselves in group discussion after every telecast. The success of the project made way for further expansion of television services and the media is now on the threshold of rapid expansion. Besides the television centre at Bombay, which was commissioned in 1972, two other centres at Srinagar (26 January) and Amritsar (29 September) and a relay centre at Poona (2 October) were set up in 1973.

Transmission Range and TV Receivers

The Delhi TV centre has a reception range of 60 km, while the Bombay centre has a range of 95 km. The relay centre at Poona has extended the range of Bombay TV programmes by 86 km. The Amritsar centre has a range of 70 km. All the centres including Srinagar centre cover an area of 83,000 sq. km and a population of 2.57 crores.

The number of TV receiver licences has risen from 551 in 1963 to 1,63,446 at the end of 1973. The circle-wise and receiver-type break-up is given in the following Table.

TABLE 10.3
NUMBER OF TV RECEIVER LICENCES[1]

Name of circle	Domestic	Community	School	Commercial	Other categories	Total
Delhi	90,104	184	934	668	254	92,144
Jammu and Kashmir	591	135	—	20	60	806
Kerala	—	—	—	—	3	3
Maharashtra	51,958	51	266	531	98	52,904
North-east	13	—	—	—	—	13
Punjab	12,404	—	—	314	86	12,804
Uttar Pradesh	4,540	—	—	82	19	4,641
West Bengal	21	—	—	—	—	21
Army postal	107	—	—	—	3	110
TOTAL	1,59,738	370	1,200	1,615	523	1,63,446

[1] As on 31 December 1973.

Indigenous production of TV receivers, which largely depends on the expansion programme of TV network in the country, has shown steady growth. Nearly one lakh sets are now produced every year, 60 per cent of the production being in the small-scale sector. There are 68 units in the small-scale sector, of which 20 have gone into production. In the organised sector, there are ten licensed production units including State Industrial Development Corporations.

Programmes
Delhi Centre

The Delhi centre telecasts programmes for 4 hours every day and the viewers have a wide range of choice in the programmes. News in Hindi and English and commentaries have their daily share. Feature films in Hindi are telecast on Sundays and regional language films and old Hindi films are shown on Saturdays. Programme for the farmers, 'Krishi Darshan', is presented thrice a week and is directed to community viewing centres in 77 villages; for the 165 urban community centres, the half-hour 'Nagar Nagrik' programme is telecast once a week. Other programmes for special audiences include those for children, youth and housewives.

For the students, in-school TV programmes were started in 1961.

Lessons in English, mathematics, physics, chemistry and biology, based on the curricula of the schools, are telecast. The government has installed 560 TV sets in 492 schools of Delhi to receive these programmes.

An analysis of the programme time shows that news and current affairs claim 21.3 per cent of the transmission time, entertainment films 29.3 per cent, while 9 per cent of the time is devoted to special audience programmes. The programme composition according to broad categories is given in Table 10.4.

TABLE 10.4
PROGRAMME COMPOSITION

Type of programme	Percentage of time
News and current affairs	21.3
Magazine programmes	7.5
Music and dance	3.7
Plays and variety	4.4
Quiz	0.8
Sports	3.9
Special audience programmes	9.0
Entertainment films	29.3
Documentary films	2.8
Community programmes	
Urban	1.8
Rural	5.4
Selections from other stations	3.9
Miscellaneous	6.2
	100.0

Source-wise, 84 per cent of the programmes of the Delhi centre originate from its own studios, while 14 per cent are imported and 2 per cent are exchange programmes received from other TV centres in India.

Bombay Centre

Programmes are telecast in English, Gujarati, Hindi, Marathi and Urdu for three hours daily, with additional time on Saturdays and Sundays. Two news bulletins, one in Hindi and the other in Marathi, are telecast daily. News commentaries are also presented in Hindi and Marathi. The programme for the industrial workers called 'Kamgar Vishwa' is telecast on Mondays and Thursdays. A film unit, stationed at Poona, visits rural areas and prepares variety programmes for the rural audiences, including programmes on agricultural operations, which are then telecast both from Bombay and Poona. Sports reviews and film coverage of sports activities elsewhere are shown twice a week. Regional language feature films are shown on Saturdays, while Hindi films are telecast on Sundays. Children's films are shown once a week.

School TV was started from Bombay on 8 October 1973. Two programmes of 20 minutes each on English and science subjects are telecast on Mondays and Fridays. 395 TV sets have been installed in schools to receive these programmes.

Poona Centre

The relay centre at Poona transmits programmes of the Bombay centre and covers an area of 23,000 sq. km around Poona. School programmes are also relayed from this centre and 25 TV sets have been provided to the schools in Poona for receiving these programmes.

Srinagar Centre

Programmes in Kashmiri and Urdu are telecast for four hours daily with an additional two-hour morning transmission on Sundays. Programmes for the special audiences include those for the youth, women, children and the rural community. In Srinagar and in the valley, 272 community TV viewing sets have been installed to receive hard-core programmes on agricultural development, family planning and allied topics.

Amritsar Centre

Programmes are telecast in English, Hindi, Punjabi and Urdu for three hours daily and are viewed on both sides of international border. A camera crew at Amritsar prepares film material on social, cultural and other activities of Punjab for inclusion in the programmes. For the rural audiences, the programme is telecast once a week. Cartoon and documentary films, science magazine, quiz and Punjabi plays and English film serials have their share in the programmes that are presented from this station.

Satellite TV Experiment

Space technology would be used for television broadcasting from June 1975 when USA's NASA would lend its geo-stationary satellite ATS-F for one year for conducting the Satellite Instructional Television Experiment (SITE) in India. Instructional programmes of 1,500 hours' duration would be beamed to the satellite from earth stations, which would then be received by direct reception TV sets in 2,400 selected villages in 20 districts of Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Orissa and Rajasthan. Programmes for the primary schools would be telecast in the morning transmission every day, while the evening transmission would present programmes on improved agricultural practices, hygiene, family planning, national integration and allied topics. The experiment would provide a system test of broadcast satellite television for national development.

THE PRESS

The press in India is not subject to state control or censorship. The freedom of the press is included in the freedom of expression which is guaranteed under the Constitution. The Government of India does not publish any daily newspaper.

The Registrar of Newspapers for India, appointed under the provisions of the Press and Registration of Books (Amendment) Act, 1955, prepares an annual report on the press, which is presented to Parliament. The Registrar also allots newsprint and recommends import of printing machinery for the newspapers.

The number of newspapers stood at 12,653 at the end of 1973 compared to 11,926 in 1972, showing an increase of 727 newspapers during the year. Nearly a third (31.5 per cent) of the newspapers were published from the four metropolitan cities of Bombay, Calcutta, Delhi and Madras. The number of languages in which the newspapers appeared separately showed no change in 1973 over 1972 and stood at 56.

Out of 12,653 newspapers, 830 were dailies, 68 tri-/bi-weeklies, 3,875 weeklies and 7,880 other periodicals. State-wise, Maharashtra had the largest papers 1,818, followed by Uttar Pradesh which had 1,797, Delhi 1,442, West Bengal 1,278 and Tamil Nadu 915. Other states which had more than 500 newspapers in 1973 were Andhra Pradesh (702), Rajasthan (691), Kerala (656), Madhya Pradesh (559), Karnataka (556) and Gujarat (555). The largest number of dailies, 136, were in Uttar Pradesh, the smallest, one, appeared from Andaman and Nicobar Islands, Himachal Pradesh, Meghalaya and Pondicherry. Table 10.5 shows the state-wise and periodicity-wise details of the number of newspapers at the end of 1973.

TABLE 10.5
NUMBER OF PAPERS (STATE-WISE)

State/Union Territory	Dailies	Tri-/Bi-weeklies	Weeklies	Others	Total 1973	Total 1972
Maharashtra	120	7	466	1,225	1,818	1,742
Uttar Pradesh	136	13	900	748	1,797	1,711
Delhi	31	2	242	1,167	1,442	1,345
West Bengal	32	7	241	998	1,278	1,213
Tamil Nadu	92	4	123	696	915	955
Andhra Pradesh	26	3	246	427	702	655
Rajasthan	35	5	337	314	691	627
Kerala	68	1	95	492	656	613
Madhya Pradesh	75	11	291	182	559	472
Karnataka	64	2	168	322	556	506
Gujarat	33	3	146	373	555	528
Punjab	36	1	162	257	456	433
Bihar	13	2	116	131	262	242
Haryana	7	2	85	120	214	201
Orissa	8	—	23	137	168	153
Jammu & Kashmir	19	—	111	23	153	136
Chandigarh	5	—	27	73	105	89
Assam	6	2	26	51	85	80
Himachal Pradesh	1	—	21	43	65	66
Pondicherry	1	—	5	42	48	43
Goa, Daman & Diu	7	—	7	17	31	26
Meghalaya	1	2	13	14	30	29
Manipur	6	—	2	21	29	30
Tripura	5	1	15	1	22	17
Mizoram	2	—	3	3	8	6
Andaman & Nicobar Islands	1	—	1	2	4	4
Nagaland	—	—	2	1	3	3
Dadra & Nagar Haveli	—	—	1	—	1	1
Arunachal Pradesh	—	—	—	—	—	—
TOTAL	830	68	3,875	7,880	12,653	11,926

A language-wise study of newspapers shows that the largest number, 3,340, was published in Hindi, followed by 2,493 in English, 990 in Urdu, 784 in Bengali, 739 in Marathi, 599 in Gujarati, 580 in Tamil, 488 in Malayalam, 405 in Telugu, 332 in Kannada and 263 in Punjabi. Bilinguals numbered 1,013. Table 10.6 shows language-wise publication of newspapers at the end of 1973.

TABLE 10.6
NUMBER OF PAPERS (LANGUAGE-WISE)

Language	Dailies	Tri-/Bi-weeklies	Weeklies	Others	Total 1973	Total 1972
English	75	7	303	2,108	2,493	2,368
Hindi	255	27	1,595	1,463	3,340	3,083
Assamese	3	1	9	25	38	36
Bengali	17	6	182	579	784	731
Gujarati	34	3	151	411	599	565
Kannada	47	2	116	167	332	298
Kashmiri	—	—	1	—	1	—
Malayalam	65	1	81	341	488	451
Marathi	78	5	251	405	739	713
Oriya	7	—	18	115	140	128
Punjabi	18	—	104	141	263	241
Sanskrit	1	—	2	20	23	22
Sindhi	5	—	24	38	67	73
Tamil	86	3	93	398	580	607
Telugu	14	—	113	278	405	394
Urdu	92	6	500	392	990	929
Bilingual	21	6	258	728	1,013	956
Multilingual	4	1	48	173	226	204
Others	8	—	26	98	132	127
TOTAL	830	68	3,875	7,880	12,653	11,926

Circulation of Newspapers

The data available for 1973 show that the newspapers had a circulation of 352.70 lakh copies compared to 320.37 lakhs in 1972. Out of 8,055 newspapers for which the publishers supplied circulation data, 7,693 or 95.5 per cent claimed a circulation of up to 15,000 copies per publishing day ('small' newspapers) and had a circulation of 164.40 lakhs or 46.6 per cent of the total. Another 258 newspapers, having circulation between 15,000 and 50,000 copies ('medium' newspapers), claimed circulation of 70.23 lakhs or 19.9 per cent. However, 104 newspapers, having circulation of more than 50,000 copies ('big' newspapers), shared 118.07 lakhs or 33.5 per cent of the total circulation of all the newspapers in India.

Newspapers published in the following languages commanded circulation exceeding 10 lakh copies each: English—83.46 lakhs; Hindi—77.56 lakhs; Tamil—39.66 lakhs; Malayalam—28.34 lakhs; Marathi—21.40 lakhs; Gujarati—21.16 lakhs; Urdu—17.25 lakhs; Bengali—16.61 lakhs; Telugu—12.18 lakhs; bilinguals—10.85 lakhs; and Kannada—10.72 lakhs. Among the principal languages, Kashmiri newspapers had the lowest circulation of 1,000 copies. The language and periodicity-wise break-up of the total circulation of 352.70 lakhs is given in Table 10.7.

TABLE 10.7
CIRCULATION (LANGUAGE-WISE AND PERIODICITY-WISE) IN 1973

(*in thousands*)

Language	Dailies	Tri-/Bi-weeklies	Weeklies	Other periodicals	Total
English	22,30	7	16,79	44,30	83,46
Hindi	16,99	36	27,76	32,45	77,56
Assamese	35	—	66	11	1,12
Bengali	5,69	7	4,25	6,60	16,61
Gujarati	7,48	22	4,85	8,61	21,16
Kannada	3,34	2	3,52	3,84	10,72
Kashmiri	—	—	1	—	1
Malayalam	11,12	—	8,95	8,27	28,34
Marathi	9,49	6	4,16	7,69	21,40
Oriya	94	—	20	1,20	2,34
Punjabi	81	—	2,38	2,37	5,56
Sanskrit	2	—	3	10	15
Sindhi	27	—	52	33	1,12
Tamil	8,74	—	15,95	14,97	39,66
Telugu	2,31	—	3,79	6,08	12,18
Urdu	3,91	11	7,01	6,22	17,25
Bilingual	46	10	3,42	6,87	10,85
Multilingual ..	5	6	53	1,42	2,06
Others	9	—	29	77	1,15
TOTAL	94,36	1,07	1,05,07	1,52,20	3,52,70

There were in 1973 a total of 6,316 newspapers, which were also in existence in 1972. Described as 'common papers', their circulation increased by 6.0 per cent in 1973. Language-wise, the highest increase, 24.8 per cent, was achieved by Oriya papers, followed by 12.4 per cent in Punjabi and 9.4 per cent in Urdu newspapers. Circulation data of common papers are given in Table 10.8.

Circulation Levels

The highest circulation by a daily newspaper, taking only single edition into account, was attained by *Ananda Bazar Patrika* (Bengali), 3,01,717 copies, followed by *Malayala Manorama* (Malayalam), 2,07,045 copies. Circulation level of 21 dailies which commanded a circulation of more than one lakh copies a day in 1973 is given in Table 10.9.

TABLE 10.8
CIRCULATION OF COMMON PAPERS (LANGUAGE-WISE)

Language	Number of newspapers	Circulation ('000)		Increase/decrease (per cent)
		1972	1973	
English	1,262	70,41	73,42	+4.3
Hindi	1,596	64,69	68,78	+6.3
Assamese	12	98	96	—2.1
Bengali	354	14,70	14,59	—0.7
Gujarati	337	18,02	19,65	+9.0
Kannada	187	8,60	9,29	+8.0
Malayalam	234	24,17	26,34	+9.0
Marathi	424	18,81	19,92	+5.9
Oriya	56	1,53	1,91	+24.8
Punjabi	133	4,35	4,89	+12.4
Sanskrit	12	11	12	+9.1
Sindhi	36	1,06	1,04	—1.9
Tamil	283	33,68	35,84	+6.4
Telugu	225	10,38	10,55	+1.6
Urdu	519	13,44	14,71	+9.4
Bilingual	473	7,82	8,49	+8.6
Multilingual	100	1,52	1,49	—2.0
Others	73	95	1,02	+7.4
TOTAL	6,316	2,95,22	3,13,01	+6.0

TABLE 10.9
DAILIES WITH CIRCULATION ABOVE ONE LAKH

Name, language and place of publication	Circulation	
	1973	1972
Ananda Bazar Patrika, Bengali, Calcutta	3,01,717	3,10,240
Malayala Manorama, Malayalam, Kottayam	2,07,045	2,04,078
Jugantar, Bengali, Calcutta	1,90,110	1,93,646
Nav Bharat Times, Hindi, New Delhi	1,85,357	1,80,287
Times of India, English, Bombay	1,76,895	1,58,630
Hindustan, Hindi, New Delhi	1,56,829	1,61,088
Hindustan Times, English, New Delhi	1,53,075	1,43,940
Mathrubhumi, Malayalam, Ernakulam	1,50,201	1,43,570
Hindu, English, Madras	1,47,401	1,31,348
Statesman, English, Calcutta	1,45,951	1,46,311
Loksatta, Marathi, Bombay	1,45,620	1,37,478
Kerala Kaumudi, Malayalam, Trivandrum	1,40,210	1,34,749
Maharashtra Times, Marathi, Bombay	1,25,696	1,19,484
Mathrubhumi, Malayalam, Calicut	1,25,091	1,22,251
Dinamani, Tamil, Madurai	1,17,500	1,12,112
Tribune, English, Chandigarh	1,14,850	1,06,893
Bombay Samachar, Gujarati, Bombay	1,13,180	1,00,718
Malayala Manorama, Malayalam, Calicut	1,08,768	1,01,676
Amrita Bazar Patrika, English, Calcutta	1,08,230	1,06,323
Gujarat Samachar, Gujarati, Ahmadabad	1,06,407	96,250
Sandesh, Gujarati, Ahmadabad	1,05,088	1,00,446

Ownership

A majority of the newspapers are owned by individuals. In 1973, out of 12,653 newspapers for which information was available, 7,926 or 62.6 per cent were under individual ownership, followed by 'societies and associations', which owned 2,251 or 17.8 per cent of the newspapers. The central and state governments together owned 443 or 3.5 per cent of the newspapers.

Newspapers owned by individuals commanded a circulation of 125.98 lakhs or 35.8 per cent, while 405 newspapers owned by public and private limited companies claimed a circulation of 121.05 lakhs or 34.3 per cent of the total circulation of all the newspapers in 1973. Table 10.10 gives the circulation data and ownership pattern of the newspapers.

TABLE 10.10
OWNERSHIP PATTERN

Form of ownership	Number of papers	Number of papers for which circulation data are available	Circulation ('000)	Percentage of total circulation
Central government ..	244	164	7,81	2.2
State governments ..	199	86	2,86	0.8
Individuals	7,926	4,794	1,25,98	35.8
Public companies ..	193	157	60,70	17.2
Private companies ..	341	248	60,35	17.1
Firms/partnerships ..	740	461	37,78	10.7
Trusts	312	255	16,45	4.7
Co-operative societies ..	114	89	2,09	0.6
Societies/associations ..	2,251	1,578	32,35	9.2
Educational institutions ..	232	146	3,22	0.9
International organisations	7	7	10	—
Political parties ..	94	70	3,01	0.8
TOTAL	12,653	8,055	3,52,70	100.0

Newsprint

The requirements of newsprint for the newspapers are met through the production of the National Newsprint and Paper Mills at Nepanagar and through imports. In 1973-74, 43,092.75 metric tonnes of Nepa newsprint and 1,53,452.71 metric tonnes of imported newsprint was allocated to such newspapers as applied for it. Newsprint amounting to 1,07,409 tonnes was imported during the year. The countries from which newsprint was imported were Bangladesh (10,000 tonnes), Canada (45,409 tonnes), Scandinavian countries (18,000 tonnes including 5,000 tonnes of glazed newsprint), USSR (28,000 tonnes), Czechoslovakia (5,000 tonnes) and Poland (1,000 tonnes).

Newsprint is allocated to newspapers according to the newsprint allocation policy decided by the government for each licensing period. The policy for 1973-74 was announced on 19 July 1973. Newspapers were entitled for newsprint on the basis of their performance in 1972-73. In view of the shortfall in the availability of newsprint, a cut of 30 per cent was imposed on this entitlement. Newspapers with a performance of up to 15,000 copies and 8 standard size pages could get this cut restored by seeking accommodation under a provision made for new newspapers. The initial quota for new newspapers was restricted to 3,000 copies of 8 pages of standard size (2,540 sq. cm) per publishing day during the first four months of publication. Thereafter, they could claim quota for up to 15,000 copies of 8 standard size pages. Newspapers were allowed to use their authorised quota of newsprint to bring out new edition of their papers.

Newsprint Advisory Committee

An advisory committee, set up in July 1964, advises the government on import and allocation policy for newsprint and printing machinery. The Minister of Information and Broadcasting is the chairman of the committee. Other members include three nominees of the Indian and Eastern Newspapers Society, two nominees of the Indian Language Newspapers Association, six officials and four non-officials nominated by the government. Non-official members hold office for two years from the date of appointment but can be re-appointed. The committee meets ordinarily twice a year.

Press Information Bureau

The Press Information Bureau disseminates information about the policies and programmes of the Government of India through the media of the press and co-ordinates publicity with other media like the film, radio and exhibition. It also keeps the government informed of the reaction to these policies as reflected in the press. The PIB thus maintains a two-way flow of information. PIB officers attached to the ministries issue press releases and feature articles, arrange press conferences and maintain contacts with the Indian and foreign correspondents and cameramen accredited to the Government of India. The PIB also co-ordinates publicity with the state governments and the public sector undertakings. It also maintains liaison with the External Publicity Division of the Ministry of External Affairs and supplies publicity material to Indian diplomatic missions abroad.

The Bureau's information material is issued in English, Hindi, and 13 other languages and is supplied not only to news agencies and journalists stationed in Delhi but also to the language press all over the country through its 28 regional and branch offices, which are linked by teleprinter circuits with its headquarters in Delhi. An extensive photo service caters to the needs of newspapers and journals which have block-making facilities, while 235 Urdu newspapers receive every week five 'charbas'—impression of a zinc block news photograph on a specially treated paper, which can be printed off without making a block.

For the benefit of small and medium newspapers, PIB provides special services like the weekly digest of news, short illustrated feature articles on diverse subjects, economic digest, agricultural newsletter, science notes, health and family planning newsletter and book reviews. Illustrated success stories covering development activities are also supplied to newspapers. In 1973-74, 64,505 press releases were issued, of which 14,798 were in English, 7,212 in Hindi and 42,495 in 13 other Indian languages.

A Central Press Accredition Committee advises the Bureau on accredition of press correspondents. Besides publicity material, the Bureau assists these correspondents in obtaining other facilities like housing, telephone, medical, travel and customs clearance. Three hundred and sixty-nine Indian and foreign correspondents and 100 cameramen are now accredited to the Government of India.

Information Centres

PIB runs information centres at New Delhi, Jullundur, Srinagar, Imphal and Aizawl. They provide reading room and library facilities and answer queries posed by the journalists and the public. Film shows are also arranged at these centres.

Wall Newspaper

A single-sheet weekly wall newspaper, 'Hamara Desh', was launched in 1970. Published in English, Hindi, Urdu, Bengali, Khasi, Malayalam, Tamil and Marathi, it projects the country's achievements and progress in various fields. Copies of the wall newspaper are displayed at key points in government and private sector offices, railway stations, canteens, schools and other places.

News Agencies

The four news agencies in India are: Press Trust of India; United News of India; Samachar Bharati and Hindusthan Samachar. While the first two supply news in English, the others are multi-lingual news agencies.

Press Trust of India is a co-operative non-profit-showing news agency. Formed in 1947, it started operations in February 1947 after taking over Reuters' business in India as well as the interests of the Associated Press of India, which, founded in 1905, had been acquired by Reuters in 1915.

PTI is now owned by 127 share-holding newspapers. No material benefits accrue to the shareholders except the services of the agency. It has 400 subscribers—195 press, 109 commercial and 96 others. Over 45,000 km of teleprinter lines, leased by the Government of India, connect its 59 bureaux all over India plus its offices in Dacca and Colombo. It has a staff of 211 journalists and 259 stringers within India and nine full-time and five part-time correspondents abroad—in Africa, America, Asia and Europe. It receives its basic foreign news from Reuters, Agence France-Presse and the United Press International. PTI has news-exchange arrangements with the news agencies of Japan, GDR, Poland, Rumania, USSR, Indonesia, Yugoslavia, Bangladesh, Nepal and Sri Lanka.

The United News of India (UNI) started operations in 1961 and has 45 branch offices located at all the state capitals and at other news centres. It has a staff of over 250 journalists, who cover regional and national news. The news is transmitted over a network of 35,000 km of leased teleprinter lines and the agency has installed some 300 teleprinters for its work.

UNI receives international news by radio teleprinter from the Associated Press of America, Tass of USSR, DPA of West Germany, and from the press agencies of Italy, Rumania, Czechoslovakia, Japan, Nepal and Bangladesh.

News is supplied to 270 subscribers located in 70 towns. The Agency also issues weekly backgrounders on topics of current interest. Its weekly agricultural news and feature services provide information on agriculture and allied subjects to the journalists, while its 'focus service' provides topical articles on India and her neighbours.

Samachar Bharati started its operations on 1 January 1967 with an authorised capital of Rs 50 lakhs and with the objective of promoting language journalism. It has about 20 offices and over one hundred newspaper and other subscribers. The agency distributes news in Hindi, Marathi, Gujarati, Punjabi, Kannada and English.

Hindusthan Samachar was started in December 1948 as a private limited company but was converted in 1957 into a workers' co-operative society. It utilises Hindi teleprinters for news transmission. It has about 125 subscribers and supplies news in Hindi and some other Indian languages.

Apart from these four major news agencies, there are a number of news-*cum*-feature agencies and regional news services which supply news, features and background material to Indian newspapers. Important among these are: India News and Feature Alliance (INFA); Press Asia International; India Press Agency (IPA); Enterprise News and Features, New Delhi; Vikrant News Service, New Delhi; Foreign News and Features, New Delhi; Cartographic News Service, New Delhi and National News Service, Delhi.

The foreign news agencies which have set up bureaux in India for news gathering are: Agence France-Presse (France): Economic News Service (Hong Kong); Associated Press (America); Bangladesh Sangbad Sangstha, Dacca (Bangladesh); Czechoslovak News Agency; ANSA (Italian News Agency); Rumanian News Agency, Bucharest (Rumania); Iraqi News Agency, Baghdad (Iraq); Kyodo News Service, Tokyo (Japan); Polish Press Agency (Poland); Reuters (UK); Tanjug Yugoslav Press Agency (Yugoslavia); Tass, Moscow (USSR); United Press International (USA); Novosti Press Agency (USSR); World Feature Services Ltd., London (UK); and ADN—Allgemeiner Deutscher Nachrichtendienst—(German Democratic Republic).

Some of these agencies have entered into agreements with PTI or UNI for the exchange of news.

Press Council

The Press Council of India was set up on 4 July 1966 under the Press Council Act of 1965 with the aim of preserving the freedom of the press and maintaining and improving the standards of newspapers and news agencies in the country. Under the Act, as amended in 1970, the Council consists of a chairman and twenty-six other members, six of whom are editors, seven working journalists, six owners or managers of newspapers, one manager of news agencies, three nominees of the University Grants Commission, Bar Council of India and the Sahitya Akademi, two nominees of the Lok Sabha and one nominee of the Rajya Sabha. The Council functions as a quasi-judicial body for adjudicating on complaints against newspapers, news agencies and journalists offending against journalistic ethics and public taste. The Council also considers complaints from newspapers, individuals or associations against any person, group, organisation or government of interference with the free functioning of the press.

The Council received 85 complaints in 1973 against newspapers and periodicals of journalistic impropriety. Among the complaints that it considered during the year, three involved communal writings, two obscenity and 17 cases pertained to journalistic misconduct of various types. The Council censured two editors, warned four others and expressed its displeasure in seven cases. Interference with the freedom of the press was alleged by 32 complainants. Some of these complaints were found to be lacking in substance, while three were upheld. The Council gave an important ruling during 1973 on advertisements emanating from foreign embassies and observed that these should be clearly distinguishable from the editorial matter carried in the Indian newspapers.

The Council's quarterly journal 'PCI Review' acquaints the press and the public about its adjudications and about press councils in other countries.

Fact Finding Committee

The Government of India set up a Fact Finding Committee on the economics of newspapers and news agencies on 14 April 1972 to ascertain, *inter alia,* the cost of production of daily newspapers, the elements of total revenue earned by newspapers and evolve norms for different elements of expenditure from the point of view of reasonableness. As there was poor response to the Committee's questionnaire from the newspapers, the government invested the Committee on 30 April 1974 with requisite powers under the Commission of Inquiry Act, 1952 to obtain information and data from the newspapers. It submitted its report on 14 January 1975.

Press Associations

The Indian and Eastern Newspaper Society, founded in 1939, is a representative body of the newspapers and has a membership of 282. It concerns itself largely with the members' business interests incidental to the production of their publications and grants accredition to advertising agencies. The All-India Newspaper Editors Conference, founded in 1940, has 293 members and looks after the interests of the editorial section of the newspaper industry. The Indian Languages Newspapers Association represents 271 newspapers and periodicals published in various Indian languages. Trade unions of the working journalists in Delhi and 16 states have their apex body called the

TABLE 10.11
OUTPUT OF FEATURE FILMS

Language		1947	1951	1956	1961	1966	1967	1968	1969	1970	1971	1972	1973
Assamese	..	—	—	3	2	2	2	1	2	3	5	7	8
Arabic	..	—	—	—	—	—	—	2	—	—	—	—	—
Bengali	..	38	38	54	36	30	25	29	29	33	30	25	35
Dogri	..	—	—	—	—	1	—	—	—	—	—	—	—
English	..	—	—	—	—	—	—	—	—	1	1	3	1
Gujarati	..	11	6	3	7	2	3	3	6	5	3	4	5
Hindi[1]	..	186	100	123	109	108	85	74[2]	100	104[3]	121[4]	134[5]	141[7]
Kannada	..	5	2	14	12	21	24	36	44	38	33	20	32
Kashmiri	..	—	—	—	—	—	—	—	1	—	—	—	—
Konkani	..	—	—	—	—	—	1	—	1	1	1	—	—
Malayalam	..	—	7	5	11	31	39	36	31	43	52	47	60
Marathi	..	6	16	13	15	12	20	17	16	19	23	13	14
Nepali	..	—	—	—	—	1	—	1	—	—	—	—	—
Oriya	..	—	—	2	2	2	2	3	2	—	1	1	2
Punjabi	..	—	4	—	5	4	5	2	4	2	2	3	5
Sindhi	..	—	—	—	—	1	1	1	2	—	1	1	1
Tamil	..	29	26	51	49	60	65	68	70	76	73	77	66
Telugu	..	6	30	27	55	41	61	77	59	71	85	73	74
Tulu	..	—	—	—	—	—	—	—	—	—	2	2	4
TOTAL	..	281	229	295	303	316	333	350	367	396	433	414[6]	448

[1] Includes Urdu, Rajasthani and Hindustani films.

[2] Includes three children's films and two Hindi films with English sub-titles.

[3] Includes one Hindi film with sub-titles in French.

[4] Includes one Bhojpuri, 14 Hindustani, one Maithili, one Chhatisgarhi and four Urdu films.

[5] Seven of these films were in Hindustani.

[6] The total includes one film in Coorgi, two in Manipuri and one in Thai language.

[7] Includes one Haryanavi, one Rajasthani, two Urdu and one Hindustani films.

Indian Federation of Working Journalists. Other prominent trade and professional associations include the National Union of Journalists, the Press Association and the Association of Indian News Agencies.

FILMS

Feature films are being produced in India since 1912-13. While R. G. Torney produced 'Pundalik' on 18 May 1912, Dada Saheb Phalke produced 'Raja Harishchandra' on 3 May 1913. The era of silent films was overtaken by the talkie era on 14 March 1931 when Ardeshir Irani produced 'Alam Ara.' Over the years, more than 12,260 features have been produced and India now leads the world in the annual output of feature films. In 1973, 448 feature films were produced, 171 of them in colour. Bombay, Calcutta and Madras are the most important centres for the making of films. In 1973, 145 films were produced in Bombay, 46 in Calcutta and 257 in Madras. The number of feature films produced in various languages and certified for public exhibition for selected years since 1947 is shown in Table 10.11.

2,266 short films, including 1,393 films in 35 mm, 869 films in 16 mm and 4 films in 8 mm were also certified for public exhibition in 1973.

Films are produced on various themes. Social subjects, however, predominate and 305 films in this category were certified in 1973. The following Table gives the thematic classification of feature films certified for public exhibition from 1968 to 1973.

TABLE 10.12
THEMATIC CLASSIFICATION

Theme	1968	1969	1970	1971	1972	1973
Social ..	224	238	254	283	273	305
Crime ..	65	64	80	83	82	102
Fantasy ..	13	11	13	8	9	1
Historical ..	5	2	2	5	2	5
Biographical ..	—	3	3	2	3	1
Mythological ..	15	17	18	16	16	19
Legendary ..	19	27	18	12	5	5
Devotional ..	2	3	1	8	6	8
Children ..	3	—	7	13	2	1
Stunt ..	4	2	—	1	6	—
Adventure ..	—	—	—	—	3	—
Political ..	—	—	—	1	2	—
Documentary ..	—	—	—	1	4	1
Horror ..	—	—	—	—	1	—
TOTAL	350	367	396	433	414	448

Documentaries and Newsreels

Weekly Indian News Review, cartoon films, quickies and documentaries required for public information, education and instruction are produced by the Films Division of the Ministry of Information and Broadcasting. The Division was set up in 1948 and has produced more than 3,000 films during the last twenty-seven years. Most of the films are produced in English and 14 Indian languages. Through its annual production of nearly 200 films, the Division has been recording the contemporary history of India and presenting filmic reports on the socio-economic progress of the country.

Important newsworthy events within and outside India are included in the weekly national newsreels. The Films Division has exchange arrangements with 21 foreign newsreel organisations for free exchange of important international news events. Eighteen newsreel cameramen stationed at various centres in India cover important news events. News events are also filmed by stringers of state government film units. At present, the Division releases one newsreel per region in a month. The cartoon film unit of the Division produces cartoons by using a variety of techniques.

Every cinema in India is required, under the terms of its licence, to exhibit at each performance not more than 609 metres of 'approved films' supplied by the Films Division. One newsreel and two short films are released every week at important centres. These are then rotated to cinema houses at other places in the country.

The Division also supplies prints on loan to government departments, semi-government bodies, educational and charitable institutions, hospitals, social welfare organisations and individuals through its seven distribution branch offices, as well as through the Regional and Field Publicity Units of the Directorate of Field Publicity, for non-commercial shows free of charge.

Documentaries considered suitable for exhibition abroad are supplied regularly to 79 Indian Missions abroad and to 18 other Missions on demand. Besides the regular arrangements for screening of its documentaries and newsreels in cinema houses in Nepal, Sikkim, Bhutan, Fiji Islands and Mauritius, the Division has entered into arrangements for distribution of its films to cinemas and for television in European countries, such as, the USSR, Federal Republic of Germany, Czechoslovakia, Hungary, Poland and the UK.

In 1972-73, the Division participated in 36 international film festivals and won eight awards. In addition, three documentaries won National Awards for Films for the year 1972 as the best entries under the main categories 'Best Social Documentation Film' and 'Best Animation Film' and 'Special Short Film.'

Censorship

Films can be exhibited in India only after they have been certified by the Central Board of Film Censors. The Board, set up under the Cinematograph (Censorship) Act of 1952, consists of nine members and a chairman, all of whom are appointed by the Government of India. The headquarters of the Board is at Bombay with regional offices at Bombay, Calcutta and Madras. The regional offices are assisted in the examination of films by advisory panels, the members of which are appointed by the government and include educationists, doctors, lawyers, social workers and others.

Producers apply to the Board in the prescribed manner. The Board examines the films and grants a 'U' certificate for unrestricted public exhibition or an 'A' certificate for exhibition restricted to adults (above the age of 18 years). The Board may direct the applicant to carry out excisions or modifications before granting the certificate. It may also refuse the certificate if the film or any part of it is against the interest of the security of the State, friendly relations with foreign states, public order, decency, morality or involves defamation or contempt of court or is likely to incite the commission of an offence. Whenever any deletions are ordered, their particulars are notified in the Gazette of India. The applicants can appeal to the Government of India within 30 days of an order of the Board.

In 1973, the Board granted 'U' certificates to 1,714 Indian and 961 foreign films. 'A' certificates were granted to 26 foreign and 51 Indian films. Twenty-nine films, 9 foreign and 20 Indian, were refused certificates. Besides, 929 films were classified as 'predominantly educational.' The Board has taken steps to curb the depiction of violence and vulgarity in the films.

Exhibition Facilities

There has been a steady growth of exhibition facilities for showing films in the country. The estimated number of seats in the cinemas (permanent and touring) at the end of 1972-73 was 49,27,000. The following Table gives the number of cinemas in 1960-61, 1965-66, and from 1968-69 to 1972-73.

TABLE 10.13
NUMBER OF CINEMAS

Cinemas		1960-61	1965-66	1968-69	1969-70	1970-71	1971-72	1972-73
Permanent	..	3,579	3,889	4,296	4,482	4,590	4,787	5,139
Touring	..	1,241	1,740	2,435	2,505	2,711	2,801	2,659
TOTAL		4,820	5,629	6,731	6,987	7,301	7,588	7,798

Film Finance Corporation

The Government of India set up the Film Finance Corporation in March 1960. Its authorised capital is rupees one crore, of which Rs 50 lakhs now constitute the issued capital, wholly subscribed by the government. The government has also given a loan of Rs 95 lakhs of which Rs 12.5 lakhs have been set apart for the exhibition activities contemplated by the Corporation. Up to 31 March 1974, the Corporation had advanced loans totalling Rs 2.30 crores for the production of 86 feature films and 27 documentary films, in full or part, out of loans of Rs 2.48 crores sanctioned for 93 feature films and 27 documentary films.

In tune with the objectives of the Corporation and in pursuance of a policy decision taken about five years ago, the emphasis for the grant of loans has shifted from box-office formulae to more valid cinematic values. Consequently, many films financed in the recent past, particularly after 'Bhuvan Shome', have won national and international awards and have also done well at the box-office. Five such films won the National Awards for 1973. Bank finance is also now available for the producers' projects. In 1973-74, the Dena Bank released loans of Rs 75,000 each for the production of three films, which were approved by the Corporation.

The Corporation plans to have its own exhibition set up. Its films are being regularly shown at the AIR auditorium, Bombay, since 1972. At Bangalore, a festival of the FFC-financed films was organised in September 1973, while a 'Season of Young Indian Cinema' was held in London in collaboration with the National Film Theatre, London.

The Corporation has also been engaged since November 1973 in the distribution of raw film and the canalisation of export of films.

Children's Film Society

Films for the children are produced mainly by the Children's Film Society. It was set up in May 1955 as an autonomous body registered under the Societies Registration Act, 1860 to undertake, aid, sponsor, promote and co-ordinate the production, distribution and exhibition of films suited for children and adolescents. In the last 19 years, it has produced 88 films including 40 feature films besides shorts, cartoons and puppet films. Of these, 12 films have won national and international awards. The expenditure of the Society is largely met from grants-in-aid given by the Central Government though it also earns revenue through affiliate membership fee realised from the state governments and union territories, sale of prints, commercial film shows and hire charges of 16-mm films.

The films of the Society are regularly shown at Bombay and New Delhi and are telecast from the TV centres. Many schools, social welfare centres and industrial establishments are the members of the Society and regularly borrow films from the 16-mm library of the Society for screening at their premises for the benefit of children. Over 12.50 lakh children saw these films in 3,467 non-commercial shows that the Society organised in 1972-73. Also in 1973, the Society organised a festival of Czechoslovak children's films at 10 centres in the country. A festival of foreign children's films was organised at Lucknow and Kanpur.

National Awards for Films

National Awards for Films, called State Awards till 1966, were instituted in 1953 for promoting India's film art by acknowledging outstanding achievements in different departments of film-making. These annual awards are given for three categories in the feature film section, seven in the short and documentary film section, 12 awards for technical excellence and one award for the best children's film. Besides, there is a regional award for the best feature film in each regional language. In 1969, an annual award for distinguished services to the Indian film industry was instituted to commemorate Dada Saheb Phalke, the founder of the Indian film industry. The Phalke Award carries a cash prize of Rs 20,000, a gold medal and a shawl. Other awards consist of a gold medal for the national best feature film, silver medal for the directors, producers and other award-winning features, short and documentary films, figurine for the best actor ('Bharat') and actress ('Urvashi') and silver medals for those adjudged best for technical excellence. There are cash prizes for each category except in the case of promotional films and excellence in acting and playback singing. A total of Rs 4.86 lakhs is given in cash prizes to the awardees.

While the Dada Saheb Phalke Award is decided by the Government of India, entries for the National Awards are examined by two national juries—one for the feature films and the other for the short films. These juries examined 88 feature films and 84 documentary and short films for the twenty-first National Awards for Films for 1973[1]. President's gold medal, which is given for the national best feature film, was awarded to 'Nirmalayam' (Malayalam), while 'Garam Hawa' (Urdu) was adjudged the best feature film on national integration. The Dada Saheb Phalke Award[2] was conferred on the actress Ruby Meyers (Sulochana) for her outstanding contribution to the cause of Indian cinema in its silent and early talkie era.

The Directorate of Film Festivals, set up by the Ministry of Information and Broadcasting on 14 May 1973, implements the scheme of National Awards and regulates India's participation in international film festivals. It also organises festivals of foreign films in India and of Indian films abroad under bilateral cultural exchange programmes.

Film Festivals

India participated in a number of international festivals in 1973-74. Three feature films and nine documentary films won awards and recognition at these festivals. Satyajit Ray's Bengali feature 'Ashani Sanket' won the Golden Bear at the twenty-third Berlin international film festival, a Golden Hugo at the ninth Chicago international film festival and a Diploma of Honour at the Vienna festival. Other award-winning films included the Films Division's 'Golden Vine', which won the Golden Ear at the eighth international agricultural film competition at Berlin.

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[1] A list of National Awards for Films for 1973 is given in the Appendices.

[2] Previous recipients of the Phalke Award are: Smt Devika Rani Roerich, B. N. Sircar, the late Prithvi Raj Kapoor and Pankaj Mullick.

India's cultural agreements with other countries promote reciprocal film festivals. In 1973-74, festivals of films from the Federal Republic of Germany, Czechoslovakia, Canada and the USSR were held in Delhi and some selected cities of India, while the festivals of Indian films were held in the German Democratic Republic, USSR, Mongolia, Bulgaria and Canada.

National Film Archive of India

The National Film Archive of India was established in 1964 with the primary objective of acquisition and preservation of national and international cinema; film classification, documentation and research; and encouraging film study and spread of film culture. Its collection on 31 March 1974 totalled 1,003 titles consisting of 749 Indian and 254 foreign films. It also has ancillary film material like 7,456 photographic stills, 2,112 wall posters and 958 disc-records.

Important Indian films acquired during 1973-74 included 'Marthanda Varma' (1932) Bal Gandharva's 'Sadhvi Meerabai' (1937), Dadasaheb Nimbalkar's 'Swarajya Seemavar' (1937), New Theatre's 'Kashinath' (1943) and 'Wapas' (1943), Ritwik Ghatak's 'Komal Gandhar' (1961) and Satyajit Ray's 'Kanchanjungha' (1962). More recent films like Mrinal Sen's 'Interview' (1971) and 'Calcutta '71' (1972) and S. Sukhdev's 'Nine Months to Freedom' (1971) have also been added. Prints of 15 films, which won the National Awards for 1972, have also been deposited with the Archive.

The Archive is a member of the International Federation of Film Archives. This enables the NFAI to exchange films with foreign archives. In 1973-74, one Italian, six Russian, four Czechoslovak, four Hungarian, three Japanese, five German and two American film classics were acquired through purchase and exchange arrangements.

The Archive maintains a distribution library of 66 films (Indian and foreign), which are loaned to film societies and others for non-commercial study screenings.

Exports

Indian films are exported to nearly 90 countries of the world. The traditional markets are the Gulf countries, Canada, East Africa, Fiji, Indonesia, Iran, Malaysia, Mauritius, Singapore, Sri Lanka, Thailand, UK, USA, West and North Africa and West Indies. Among the non-traditional markets, USSR has emerged as an important buyer and has concluded a five-year agreement for regular import of Indian films. The demand is mainly for Hindi and Tamil films. During 1973, export earnings amounted to Rs 5.40 crores.

Export was previously undertaken by merchant-exporters and producer-exporters. In the public sector, the Indian Motion Pictures' Export Corporation was set up in September 1963 with a share capital of Rs 25 lakhs subscribed both by the industry and the government. IMPEC became a subsidiary of the State Trading Corporation of India in April 1967 and was placed under the control of the Ministry of Information and Broadcasting in October 1973. Its share in film exports amounted to Rs 38.61 lakhs in 1972-73. The export of feature films was canalised through the State Trading Corporation in August 1972 and through the Film Finance Corporation in October 1973. The government have decided to set up a National Film Corporation, which will be a multi-functional body in the public sector to handle import and export, distribution and exhibition of feature films and undertake allied functions.

Cinematographic Film and Equipment

A public sector company, Hindustan Photo Films, Ootacamund, manufactures black and white cine film. Its production of cine film positive and cine sound negative is sufficient to meet the needs of Indian film industry. In 1972-73, it produced 14.02 lakh sq.m of cine film positive.

Cinematographic film and equipments are also imported to meet the requirements of the film industry. These imports were valued at Rs 7.13 crores in 1972-73. The following Table shows the quantity and value of imports in the last six years.

TABLE 10.14
CINE FILM AND EQUIPMENT IMPORTS

Year	Unexposed sensitized film in rolls		Exposed cine film (whether developed or not)		Sound recording equipment	Projection equipment[1]
	Quantity (*lakh metres*)	Value (*Rs lakhs*)	Quantity (*lakh metres*)	Value (*Rs lakhs*)	Value (*Rs lakhs*)	Value (*Rs lakhs*)
1968-69	432.04	304.77	47.21	69.55	1.68	63.79
1969-70	614.12	473.10	22.55	31.15	2.14	31.37
1970-71	777.86	532.59	23.30	36.68	1.91	1,70.39
1971-72	911.84	638.69	15.19	29.01	2.03	21.77
1972-73	831.45	641.08	23.57	29.38	2.87	39.85
1973-74 (up to Dec. 1973)	503.53	444.30	9.42	14.58	1.81	21.78

[1] Includes value of parts and accessories of cine cameras, projectors, etc., for which separate figures are not available.

PUBLICATIONS

Publications Division

The Publications Division of the Ministry of Information and Broadcasting was set up in 1941 as foreign branch of the Bureau of Public Information and was renamed as Publications Division in 1944. It is the premier agency of the Government of India to educate and inform the readers through the print medium. It produces books, pamphlets, pictorial albums and journals in Hindi, English and major regional languages. Till April 1974, it had brought out 4,697 such publications.

Alongside publications on art and culture, history and tradition, political evolution and democratic processes, economic development and social resurgence, the Division also brings out books on research, and technology. Under its 'Builders of Modern India' series, the Division has released 35 biographies of eminent Indians who led the freedom movement during the last 150 years. Under the 'States of Our Union' series, which seeks to introduce the people of each state to the others, 13 titles including the latest ones on Jammu and Kashmir and Lakshadweep, have been published. The Division's books on art and culture include the 'Heritage of Indian Art' and 'An Introduction to Indian Music'. Publications on science and sociology include a booklet on atomic energy and a study of the social background of India's administrators. Selected speeches and writings of Presidents, Vice-Presidents and Prime Ministers have also been published.

The Division brings out 16 journals of varying periodicity. 'Yojana', a journal devoted to planning, is brought out in Assamese, Bengali, English, Gujarati, Hindi, Malayalam, Marathi, Tamil and Telugu. 'Bal Bharati' (Hindi) is produced for children, while 'Ajkal' (Hindi and Urdu) serves the cultural needs of adult readers. Other journals include the 'Indian and Foreign Review' and 'Kurukshetra.'

The books and journals are sold through booksellers and the Division's own sales emporia, while publicity literature is distributed free to selected targets.

ADVERTISING AND VISUAL PUBLICITY

Directorate of Advertising and Visual Publicity

The Directorate of Advertising and Visual Publicity is the central agency of the Government of India for undertaking mass publicity campaigns on behalf of the various ministries, departments and autonomous bodies under the government. Radio advertising for the nationalised banks is also undertaken by the DAVP. Publicity campaigns are conducted through press advertisements, printed publicity material like folders, leaflets, brochures and booklets, outdoor publicity items like hoardings, panels and metallic tablets and radio 'spots'. Policies and programmes of the government are also publicised through exhibitions. The Directorate has 34 field exhibition units, most of them at state capitals, including five mobile vans and two exhibition coaches, for organising these exhibitions. In 1973, 801 exhibitions were organised by the DAVP in various parts of the country.

The multi-media national campaigns of the Directorate are launched to inform and educate the people on matters of immediate and long-term interest. While some of the recent campaigns aimed at seeking public support for checking the hoarding and adulteration of foodgrains, other campaigns sought to motivate the people for family planning, small savings, community development, industrial projects in rural and backward areas and the promotion of exports.

Government Advertisements

Advertisements of all the ministries and departments of the Government of India, excluding railways, are released to the press by the DAVP. While selecting newspapers for these advertisements, special consideration is given to medium and small newspapers. To qualify for government advertisements, a newspaper must have regular periodicity, uninterrupted publication for six months and a paid circulation of not less than 1,000 copies. Newspapers are also required to maintain accepted standards of production and journalistic ethics.

Awards for Printing and Designing

The Directorate organises every year the 'National Awards for Excellence in Printing and Designing', which generate healthy competitive endeavours for higher standards in printing and layout. In the 16th Awards, announced on 18 November 1973, the largest number of prizes were won by the Times of India Press, Bombay, in the category of daily newspapers (English).

FIELD PUBLICITY

The Directorate of Field Publicity, set up in 1953, reaches the people through its 212 field units and 17 regional offices and seeks public support for national campaigns on planned development, small savings, defence preparedness, national integration and secularism. The mobile units organise film shows, publicity meetings, seminars, song and drama programmes including 'harikathas' and 'qawalis' and distribute publicity literature. People in remote villages and hilly border areas, who have relatively less opportunity to see films or have access to information through other media, also attend these programmes for their information and entertainment. In 1973, nearly 98,000 film

CBS 156, a variety of extra long staple superfine cotton (36 mm), developed by Tamil Nadu Agricultural University, Coimbatore

Dr M.D. Pathak, Indian entomologist, receiving the 1973 Borlaug Award for outstanding service to agriculture from Dr Norman Borlaug in New Delhi

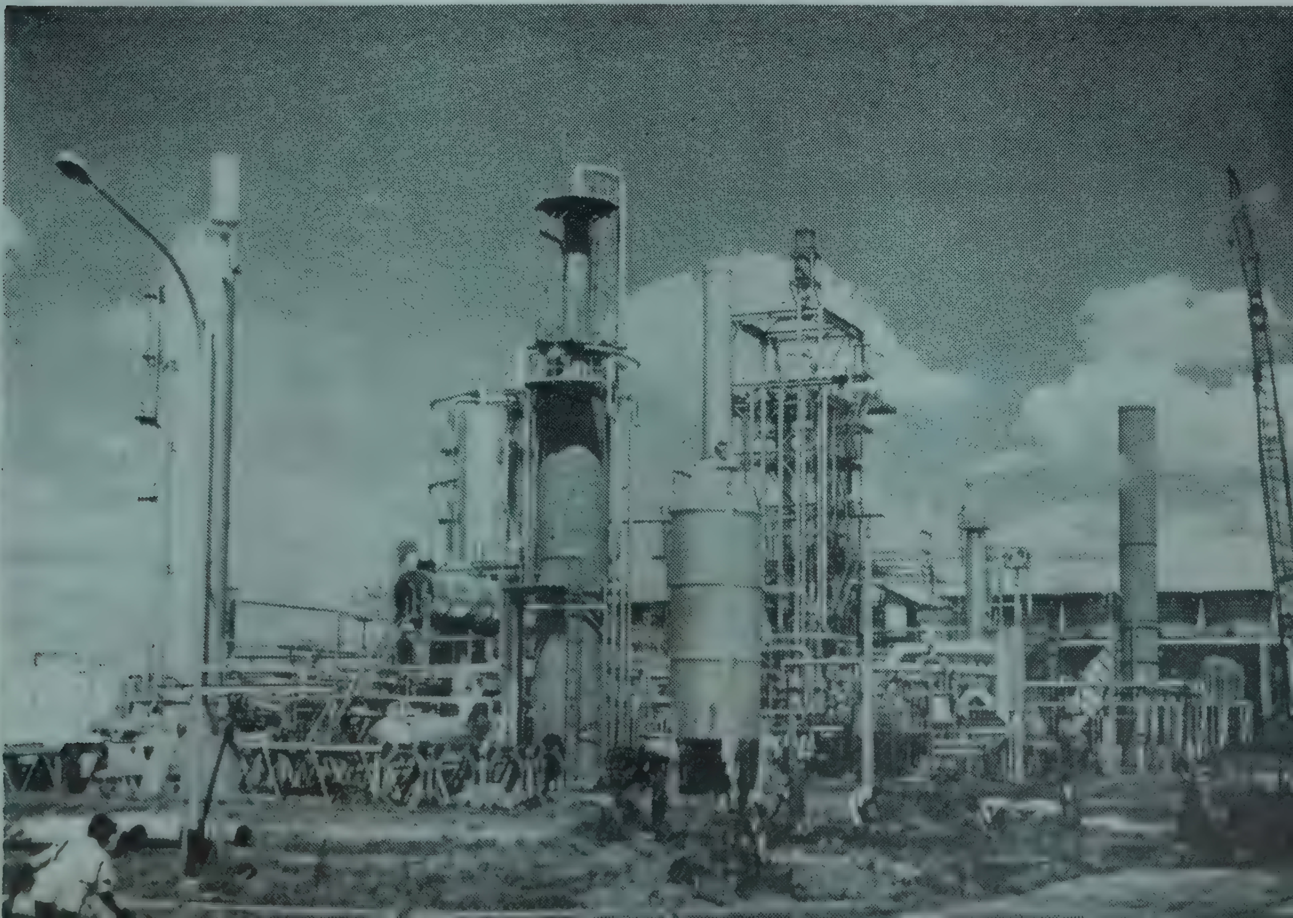
At the Seventh Asian Games held at Teheran in September 1974, India won four gold, twelve silver and twelve bronze medals.
Shivnath Singh, gold medalist of the 5,000-metre race, at the victory stand

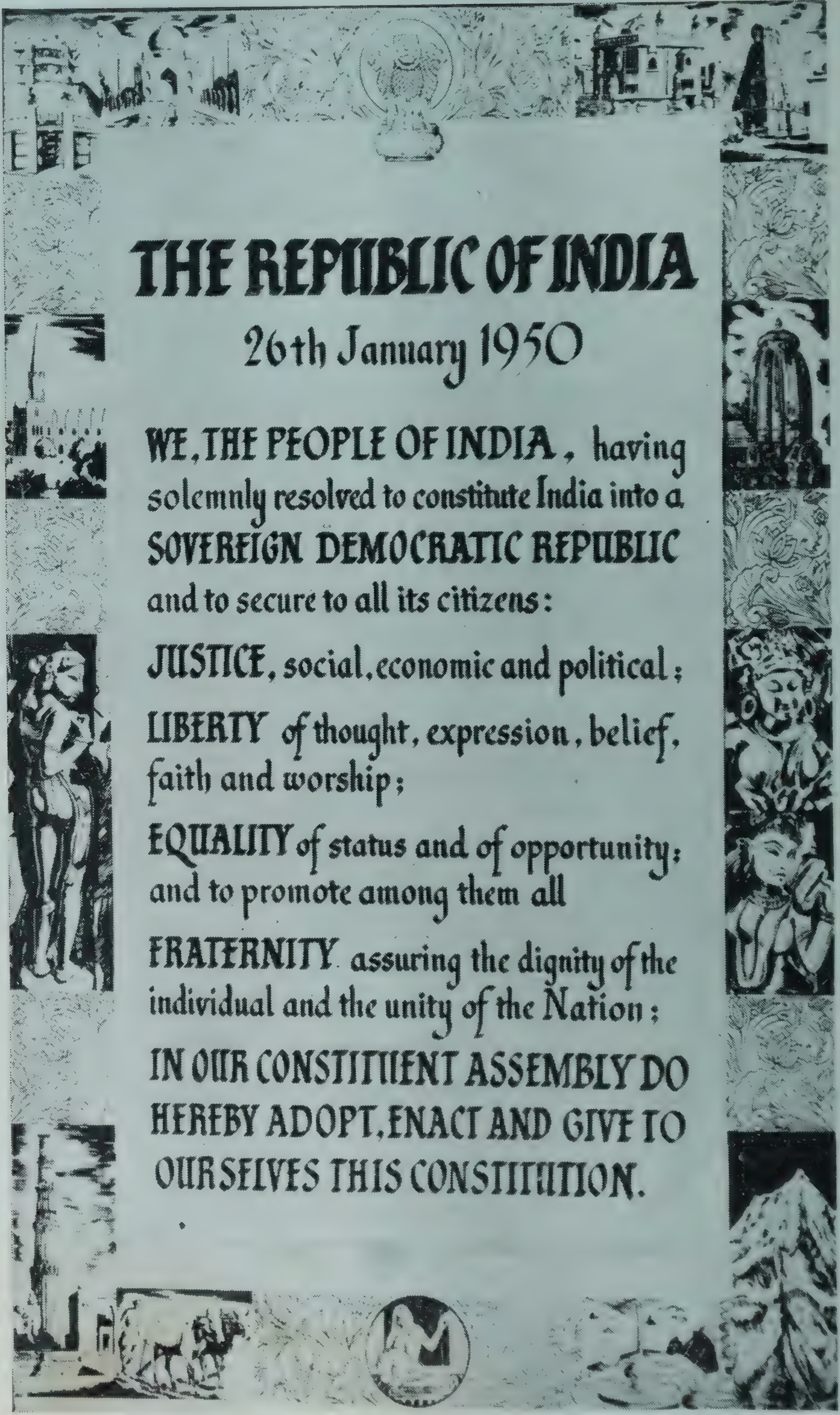
India vs *Soviet Union in the Davis Cup Zonal Final played at Poona in September 1974. India won 3-1*

XXVI INTERNATIONAL CONGRESS OF PHYSIOLOGICAL SCIENCES
IUPS
1953
1974

The President of India, Shri Fakhruddin Ali Ahmed, inaugurated the Twenty-sixth International Congress of Physiological Sciences in New Delhi in October 1974. The Nobel laureate, Dr Hargobind Khorana, is third from the right.

Kalol fertilizer plant of the Indian Farmers' Fertilizer Co-operative Ltd. The Rs 64-crore unit, with a daily capacity of 910 tonnes of ammonia and 1,200 tonnes of urea, was inaugurated by the Prime Minister in November 1974.





THE REPUBLIC OF INDIA

26th January 1950

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a **SOVEREIGN DEMOCRATIC REPUBLIC** and to secure to all its citizens:

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity of the Nation;

IN OUR CONSTITUENT ASSEMBLY DO HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

26 January 1975 marks the twenty-fifth anniversary of the Republic of India. Reproduced above is the preamble to the Constitution.

shows and more than 9,000 song and drama programmes were organised at various places in the country.

The Directorate gathers public reaction to government policies and programmes and these feed-back reports are supplied to various departments of the government. Success stories about people's participation in development programmes are reported to the press.

EXTERNAL PUBLICITY

The External Publicity Division of the Ministry of External Affairs explains and interprets the policies of the Government of India to foreign audiences. It supplies publicity material to Indian Missions abroad for distribution. For quick transmission of developments at home, it maintains teleprinter link with 64 Missions, while material received from them is issued to the Indian press. Under the cultural exchange programmes, Indian journalists are sent abroad, while foreign journalists are provided with facilities in India. In 1973-74, 110 Indian journalists were sent abroad, while 82 foreign journalists were invited to India to cover development projects.

SONG AND DRAMA

The Song and Drama Division of the Ministry of Information and Broadcasting, established in 1954, has become the biggest live-entertainment organisation. Through its seven departmental drama troupes, 28 troupes on the international border and 9 troupes of the Armed Forces Entertainment Wing, the Division presents various types of programmes for the masses, which include both rural and urban people, tribal people in interior-most areas and especially the Armed Forces personnel posted in forward areas. The programmes create an awareness of the social, economic and democratic ideals cherished by the nation. In addition to these troupes, private parties/artistes, registered by the Division from all over India, conduct different types of programmes through the Division's regional centres and the offices of the Directorate of Field Publicity.

In 1969, the Division created Theatre Panosonic—a Sound and Light spectacle with live action by a large number of artistes, which can be witnessed from different angles by thousands of people at a time. This programme, presented at Delhi, Srinagar and Amritsar, attracted large audiences. A special programme in the medium, 'Badhte Qadam', prepared on the occasion of the 25th Jayanti of Indian Independence, is still being shown at various places.

RESEARCH AND REFERENCE

The Research and Reference Division of the Ministry of Information and Broadcasting studies in depth problems of national significance and provides reference service to the media units of the Ministry of Information and Broadcasting and others. The Division's regular services include 'Background to the News' and the 'Bulletin on Film', which records every month the main trends in Indian and foreign film industry. The Division also compiles 'India—A Reference Annual', which is a standard work of reference and provides objective and authentic information on diverse apects of national life and activities in India. In 1973-74, the Division compiled a 'National

Directory of Information Organisations' containing information about such organisations of the central and state governments.

MASS COMMUNICATION TRAINING

Training in mass communication subjects is given by a number of institutions in the country. The universities of Banaras, Calcutta and Mysore offer post-graduate degree in journalism, while the universities of Gauhati, Jabalpur, Madras, Nagpur, Osmania, Poona and Punjab offer diploma courses in journalism. The Punjab Agricultural University at Ludhiana has an M.Sc. course in journalism for science graduates.

AIR Training Schools

Training in radio broadcasting is conducted by the All India Radio. Its Staff Training School (Programmes) gives training in planning and production of spoken word programmes, drama scripting, audience research and allied topics. Foreign trainees also benefit from these programmes. In 1973, nine family planning communicators from Iran studied radio programmes at Delhi and Lucknow. The Staff Training School (Technical) conducts training courses for engineering personnel of AIR.

Film and Television Training

The Film and Television Institute of India, set up at Poona in 1960 by the Ministry of Information and Broadcasting, and the Government of Tamil Nadu's Institute of Film Technology at Madras offer training courses in the art and craft of film-making. The FTII became an autonomous body in October 1974. It offers three-year courses in film direction, screenplay writing, motion picture photography, sound recording and sound engineering, and two-year courses in film editing and film acting. At present, 165 Indian and 11 foreign students are undergoing training in various courses. In 1973-74, the students produced 15 diploma films, 15 documentary films, 28 song picturisations and 13 advertisement films.

The Television Training Centre, which was set up by the Government of India in 1971, trains man-power required for the expanding TV network in the country. First set up in Delhi, it has now been shifted to Poona.

Indian Institute of Mass Communication

The Indian Institute of Mass Communication was set up by the Ministry of Information and Broadcasting in August 1965 as a centre for study and research in mass communication. It has been an autonomous body since January 1966 and is equipped to provide practical instruction in various media of mass communication. The Institute has seven faculties: developmental communication; print medium; radio, television and speech communication; visual communication; advertising and campaign planning; traditional media; and communication research. It conducts a three-month in-service basic course in multimedia operations for the intermediate level personnel of the central and state information departments and public sector undertakings. The probationers of the Central Information Service are trained through a 16-month basic professional course. The Institute also conducts every year an eight-month Post-Graduate Diploma Course in Journalism for Developing Countries. Its recent research studies include a report on the impact of field publicity activities in four districts of Rajasthan and a report on the Public Service Commission advertisements.

11 ECONOMIC STRUCTURE

India is rich in natural resources and man-power. These resources have, however, not been exploited fully and are capable of greater utilisation. The Indian economy is still predominantly agricultural; about half of the country's national income is derived from agriculture and allied activities which absorb nearly three-fourths of its working force. Since 1947, the aim has been to diversify the economy by accelerating the pace of industrial development, increase agricultural productivity and achieve all-round progress under the national plans.

NATIONAL AND PER CAPITA INCOMES

National income in India is defined as the sum of incomes accruing to factors of production supplied by normal residents of the country before deduction of direct taxes. It is identically equal to net national product at factor cost. Table 11.1 gives the estimates of national and per capita incomes for selected years since 1960-61 at current and 1960-61 prices, as compiled by the Central Statistical Organisation.

TABLE 11.1
National and Per Capita Incomes at Factor Cost

Item	1960-61	1968-69	1969-70	1970-71[1]	1971-72[1]	1972-73[2]
Net national product (Rs crores)						
at current prices	13,279	28,808	31,778	33,946	35,756	38,921
at 1960-61 prices	13,279	17,150	18,086	18,708	19,033	19,101
Per capita net national product (Rs)						
at current prices	306.0	556.1	600.7	627.5	645.4	687.6
at 1960-61 prices	306.0	331.1	341.9	345.8	343.6	337.5
Index number of net national product with 1960-61 as base						
at current prices	100.0	216.9	239.3	255.6	269.3	293.1
at 1960-61 prices	100.0	129.2	136.2	140.9	143.3	143.8
Index number of per capita net national product with 1960-61 as base						
at current prices	100.0	181.7	196.3	205.1	210.9	224.7
at 1960-61 prices	100.0	108.2	111.7	113.0	112.3	110.3
Gross national product (Rs crores)						
at current prices	14,007	30,519	33,701	36,046	38,073	41,461
at 1960-61 prices	14,007	18,407	19,386	20,077	20,466	20,598
Index number of gross national product						
at current prices	100.0	217.9	240.6	257.3	271.8	296.0
at 1960-61 prices	100.0	131.4	138.4	143.3	146.1	147.1

[1] Provisional. [2] Quick estimates.

Table 11.2 gives the national product and some related aggregates at current prices for selected years since 1960-61.

Table 11.3 gives the share of public and private sectors in domestic product at current prices.

EMPLOYMENT AND UNEMPLOYMENT

For 1971 census, the population was divided into workers and non-workers. There were nine categories of workers, *viz.*, (i) cultivators, (ii) agricultural labourers, (iii) livestock, forestry, fishing, etc (iv) mining and quarrying, (v) manufacturing, processing, etc., (vi) construction, (vii) trade and commerce, (viii) transport, storage and

TABLE 11.2 NATIONAL INCOME AND SOME RELATED AGGREGATES

(*Rs crores*)

	1960-61	1968-69[1]	1969-70[1]	1970-71[1]
(a) Net domestic product at factor cost	13,347	29,069	32,039	34,217
(b) Net factor income from abroad	(—)68	(—)261	(—)261	(—)271
(c) Net national product at factor cost (a+b)	13,279	28,808	31,778	33,946
(d) Indirect taxes *less* subsidies	947	2,731	3,059	3,521
(e) Net national product at market prices (c+d)	14,226	31,539	34,837	37,467
(f) Allowance for depreciation	728	1,711	1,923	2,100
(g) Gross national product at market prices (e+f)	14,954	33,250	36,760	39,567
(h) Gross national product at factor cost	14,007	30,519	33,701	36,046
(i) Net domestic product at factor cost	13,347	29,069	32,039	34,217
(j) *Less* income from domestic product accruing tó Government	187	504	584	596
(k) Income from domestic product accruing to private sector (i-j)	13,150	28,586	31,432	33,531
(l) National debt interest	59	210	252	245
(m) Net factor income from abroad	(—) 68	(—)261	(—)261	(—)271
(n) Transfer payments	166	431	490	575
(o) Other current transfers from the rest of the world, net	28	128	125	123
(p) Private income (k+l+m+n+o)	13,335	29,094	32,038	34,203

[1] Provisional.

TABLE 11.3 SHARE OF PUBLIC AND PRIVATE SECTORS IN DOMESTIC PRODUCT

(*Rs crores*)

Item	1960-61	1968-69[1]	1969-70[1]	1970-71[1]
Gross domestic product (total)	**14,075**	**30,780**	**33,962**	**36,317**
Gross product of public sector	1,537	4,262	4,855	5,459
Government administration	735	1,970	2,195	2,401
Departmental enterprises	586	1,247	1,340	1,476
Non-departmental enterprises	216	1,045	1,320	1,582
Gross product of private sector	12,538	26,518	29,107	30,858
Net domestic product (total)	**13,347**	**29,069**	**32,039**	**34,217**
Net product of public sector	1,422	3,933	4,472	5,048
Government administration	735	1,970	2,195	2,401
Departmental enterprises	522	1,156	1,241	1,371
Non-departmental enterprises	165	807	1,036	1,276
Net product of private sector	11,925	25,136	27,567	29,169

[1] Provisional.

TABLE 11.4 POPULATION, DIFFERENT CATEGORIES OF WORKERS AND NON-WORKERS

(*in crores*)

	Rural	Urban	Total
Total population	43.88	10.91	54.79
Workers	14.84	3.20	18.04
(i) cultivators	7.65	0.16	7.81
(ii) agricultural labourers	4.56	0.19	4.75
(iii) livestock, forestry, fishing, etc.	0.38	0.06	0.44
(iv) mining and quarrying	0.06	0.03	0.09
(v) manufacturing, processing, etc.	0.82	0.89	1.71
(vi) construction	0.11	0.11	0.22
(vii) trade & commerce	0.36	0.64	1.00
(viii) transport, storage & communications	0.12	0.32	0.44
(ix) other services	0.78	0.80	1.58
Non-workers	29.04	7.71	36.75

communications, and (ix) other services. Non-workers were divided into the following seven categories: (i) those engaged in household duties, (ii) students, (iii) retired persons or rentiers, (iv) dependants, (v) beggars, (vi) those living in institutions, and (vii) other non-workers. Table 11.4 shows the number of workers and non-workers in rural and urban areas.

Employment in Organised Sector

The employment position in the entire country is not available for the inter-censual period. However, the data collected under Employment Market Information give an idea of employment in the organised sector covering the entire public sector and those establishments in the non-agricultural private sector employing more than 10 persons.

Employment in the organised sector on the eve of the Fourth Plan, *i.e.*, on 31 March 1969, and on 31 March 1973 was as follows.

TABLE 11.5
EMPLOYMENT IN ORGANISED SECTOR

(*in lakhs*)

	March 1969	March 1973
Public sector		
Central government	27.20	29.18
State government	39.00	45.79
Quasi-government	15.80	25.78
Local bodies	18.30	19.00
TOTAL	100.30	119.75
Private sector (non-agricultural)		
Larger establishments (employing 25 or more workers)	58.70	60.98
Smaller establishments (employing 10-24 workers)	7.30	7.51
TOTAL	66.00	68.49
GRAND TOTAL	166.30	188.24

The above Table shows that during the first four years of the Fourth Plan, 21.94 lakh more persons got employment, 19.45 lakhs in the public sector and 2.49 lakhs in the private sector.

Unemployment

A comparable series on the level of unemployment in the country is not yet available. However, the number of persons on the live register of employment exchanges gives an idea of the trend of unemployment subject to certain limitations. Employment exchanges cover mainly urban areas. Registration with the employment exchanges being voluntary, not all the unemployed register themselves with the exchanges. Further, some of the registrants are already employed but have registered for seeking better employment. The following Table gives the occupational distribution of applicants on the live register of employment exchanges on 31 December 1968 and 1973. It would be observed that during this period the number of job-seekers registered with the exchanges went up by 52 lakhs, from 30 to 82 lakhs. During this period, the proportion of job-seekers registered with exchanges under professional, technical and related groups declined from 8.4 per cent to 4.8 per cent whereas in respect of persons without professional or vocational training or previous work experience, the proportion went up from 68.1 per cent to 74.8 per cent.

TABLE 11.6
APPLICANTS ON THE LIVE REGISTER OF EMPLOYMENT EXCHANGES

Occupational group	At the end of 1968		At the end of 1973	
	Number	Percentage	Number	Percentage
Professional, technical and related workers	2,52,426	8.4	3,97,365	4.8
Administrative, executive and managerial workers	5,721	0.2	10,215	0.1
Clerical, sales and related workers	1,31,701	4.4	3,61,232	4.4
Agricultural, dairy and related workers	12,160	0.4	23,655	0.3
Miners, quarrymen and related workers	6,591	0.2	2,099	—
Workers in transport and communication occupations	80,892	2.7	1,90,013	2.3
Craftsmen and production process workers	2,45,856	8.2	5,52,808	6.7
Service workers (*e.g.*, cooks, chowkidars, sweepers, etc.)	1,18,169	3.9	2,69,310	3.3
Labourers with work experience not elsewhere classified	1,05,625	3.5	2,66,623	3.3
Persons without professional or vocational training or previous work experience TOTAL	20,52,501	68.1	61,44,329	74.8
(a) Below matric (including illiterates)	10,95,361	36.4	30,24,729	36.8
(b) Matriculates and above but below graduates	8,37,893	27.8	25,29,358	30.8
(c) Graduates and above	1,19,247	3.9	5,90,242	7.2
GRAND TOTAL	30,11,642	100.0	82,17,649	100.0

NATIONAL SAMPLE SURVEY ORGANISATION

The National Sample Survey was set up in 1950 with the aim of obtaining comprehensive and continuing information relating to social, economic, demographic, industrial and agricultural statistics through sample surveys on a countrywide basis. In 1970, a National Sample Survey Organisation (NSSO) was created and the National Sample Survey was made a part of the new organisation. The NSSO has four divisions, namely, Survey, Design and Research Division, Field Operations Division, Data Processing Division and Economic Analysis Division to conduct its sampling enquiries. To reduce the time lag between the collection of data and its processing, manual tabulation centres were set up in 1972-73 in different parts of the country for tabulating the data on a few selected key items.

The activities of NSSO, which were initially confined to household socio-economic enquiries, now cover the fields of industrial and agricultural statistics also. The socio-economic surveys are conducted annually on different subjects. Of the total all-India sample of villages and urban blocks, one half of the sample is canvassed by NSSO staff and the other by the state statistical bureaux which are given grants for this purpose. Industrial statistics are obtained through Annual Survey of Industries conducted under the Collection of Statistics Act, 1953. The field work of the survey is carried out by the FOD and processing of the data is done in the Central Statistical Organisation. In the field of agricultural statistics, NSSO provides technical guidance to states in the planning and organisation of crop estimation surveys and exercises supervision over the work of the state agencies.

The programme of data collection is done by rounds of surveys. So far, 28 rounds have been carried out. The next round relating to (a) self employment in non-agricultural sector, and (b) rural labour enquiry, is in progress.

PRICES

The movement of wholesale prices in India over recent years is shown in Table 11.7.

TABLE 11.7
INDEX NUMBERS OF WHOLESALE PRICES

(Base: 1961-62=100)

Item	Weight	1969-70	1970-71	1971-72	1972-73	1973-74	March 1974
Food articles							
Total	(41.3)	196.8	203.9	210.3	239.5	295.6	320.5
Foodgrains	14.8	208.2	206.8	214.9	247.5	296.0	331.0
Liquor and tobacco	(2.5)	195.0	184.9	194.8	233.0	251.1	272.7
Fuel, power, light and lubricants	(6.1)	155.1	161.8	172.1	180.7	213.9	287.6
Industrial raw materials							
Total	(12.1)	180.1	197.3	191.0	204.0	299.1	323.2
Fibres	4.1	155.5	178.4	183.7	168.3	224.6	255.2
Oilseeds	5.2	208.5	230.2	208.6	237.3	378.9	401.6
Minerals	0.4	136.3	137.1	138.8	140.1	147.6	145.0
Others	2.4	161.6	166.8	172.6	200.7	274.9	294.5
Chemicals	(0.7)	183.3	188.0	197.0	200.8	219.3	262.0
Machinery and transport equipment	(7.9)	136.3	148.0	159.0	168.2	183.3	212.9
Manufactures							
Total	(29.4)	143.5	154.9	167.1	176.7	205.5	233.4
Intermediate products	5.7	160.1	178.7	196.7	212.3	268.1	311.3
Finished products	23.7	139.5	149.2	154.9	168.0	190.4	214.4
All commodities	(100.0)	171.6	181.1	188.4	207.1	254.0	283.1

Consumer Prices

The all-India working class consumer price index on base 1949=100 has been replaced by a new series of consumer price index numbers for industrial workers on base 1960=100 with effect from August 1968. Table 11.8 shows the consumer price index numbers for industrial workers for the period 1968-69 to 1973-74. Whereas the 1949 series were based on the indices for 27 different centres, the new

TABLE 11.8
CONSUMER PRICE INDEX NUMBERS FOR INDUSTRIAL WORKERS

(Base: 1960=100)

Year	Bombay	Ahmadabad	Calcutta	Madras[1]	Kanpur	Delhi	All-India	
							All items	Food
1968-69	167	165	170	150	174	178	174	192
1969-70	175	169	172	160	182	185	177	193
1970-71	182	176	182	170	190	199	186	201
1971-72	190	181	187	182	196	211	192	205
1972-73	203	198	197	203	212	222	207	223
1973-74	233	245	228	229	251	265	250	277[2]

[1] Figures for the period up to January 1970 have been estimated from the old Consumer Price Index series for Madras city on base July 1935-June 1936=100. From February 1970 onwards, figures are from the Labour Bureau's New Series on base 1960=100.

[2] Average of 11 months (April 1973 to February 1974).

Note: All-India index figures for the period prior to August 1968 have been obtained from 1949 series by using the following conversion factors:
General Index (conversion factor)—1.2154.
Food Index (conversion factor)—1.1574.

series are based on indices for 50 centres of industrial activity including some in the plantation and mining sectors. Figures for the new series (for the earlier years) have been obtained from 1949 series by using the linking factor of 1.2154 for the general index. This linking factor has been derived by dividing the average working class consumer price index (1949=100) for the period August 1967-July 1968 by the corresponding average index for the new series.

During 1973-74, the all-India general index showed a rise of 43 points from that of the previous year and the all-India food index alone rose by 54 points.

Table 11.9 gives the index numbers of consumer prices for urban non-manual employees for the period 1967-68 to 1972-73. The index numbers for some recent months are also given.

TABLE 11.9
CONSUMER PRICE INDEX NUMBERS FOR URBAN NON-MANUAL EMPLOYEES

(Base: 1960=100)

Year/Month	Bombay	Calcutta	Madras	Delhi/ New Delhi	All-India
1967-68	153	152	154	154	159
1968-69	156	156	154	162	161
1969-70	162	162	161	168	167
1970-71	168	170	175	174	174
1971-72	172	174	188	180	180
1972-73	183	180	204	190	192
April 1973	195	184	214	195	202
May 1973	201	189	218	198	207
June 1973	206	193	222	205	211
July 1973	208	197	224	208	216
Aug. 1973	202	199	228	215	218
Sept. 1973	200	202	226	217	219
Oct. 1973	202	210	229	219	223
Nov. 1973	205	211	235	223	226
Dec. 1973	206	213	238	226	228
Jan. 1974	206	214	240	229	231
Feb. 1974	210	213	245	230	233

12 FINANCE

PUBLIC FINANCE

The power to raise and disburse public funds has been divided under the Constitution between the Government of India and state governments. There are thus more than one budget and more than one public treasury in the country. The sources of revenue for the union and the states are, by and large, mutually exclusive, if shareable taxes between them are excluded.

The Constitution provides that (i) no tax can be levied or collected except by authority of law, (ii) no expenditure can be incurred from public funds except in the manner provided in the Constitution, and (iii) the executive authorities must spend public money only in the manner sanctioned by Parliament in the case of the union and the state legislature in the case of a state.

All receipts and disbursements of the union government are kept under two separate headings, namely, the Consolidated Fund of India and the Public Account of India. All revenues received, loans raised and moneys received in repayment of loans by the union government go to form the Consolidated Fund. No money can be withdrawn from this Fund except under the authority of an Act of Parliament. All other receipts and disbursements, such as, deposits, service funds and remittances go into the Public Account which is not subject to the vote of Parliament. To meet unforeseen needs, not provided in the Annual Appropriation Act, a Contingency Fund of India has also been established under article 267(i) of the Constitution.

The Constitution also provides for the establishment of a Consolidated Fund, a Public Account and a Contingency Fund for each state.

The Railways, the largest public undertaking, have their own funds and accounts and their budget is presented separately to Parliament. The appropriations and disbursements under the railway budget are subject to the same form of parliamentary and audit control as other appropriations and disbursements.

Sources of Revenue

The main sources of union revenues are customs duties, union excise duties and the corporation and income taxes (excluding taxes on agricultural income). The revenue from the wealth tax accrues to the union. Since 1971-72, the value of agricultural property held by individuals and Hindu undivided families has also been brought under the purview of the Wealth Tax Act. However, the net proceeds of the wealth tax on agricultural property are passed on to the states. The Railways and Posts and Telegraphs also contribute to the general revenues of the union out of their net profits.

The main heads of revenue in the states are the taxes and duties levied by state governments, the share of taxes levied by the central government and grants received from the union. Land revenue, sales tax, state excise duties, registration and stamp duties and shares of income tax and union excise duties constitute more than four-fifths of the tax revenue and more than half of the total revenue receipts of the states. Property taxes and octroi and terminal taxes are the mainstay of local finance.

Transfer of Resources to States

The devolution of resources from the union to the states is a salient feature of the system of federal finance in India. Apart from their share of taxes and duties, state governments receive statutory and other grants as well as loans for various development schemes and rehabilitation purposes. The total amount of resources transferred to the states during the Second Plan period was more than double of that during the First Plan period. It was nearly double again during the Third Plan. In later years, except 1967-68 and 1968-69, it has been on the increase as shown in Table 12.1.

TABLE 12.1 RESOURCES TRANSFERRED TO STATES

(*Rs crores*)

Period	Taxes and duties	Grants	Loans[1]	Total	Aggregate expenditures of state govts.	(4) as percentage of (5)
	1	2	3	4	5	6
First Plan	352.5	214.8	637.9	1,205.2	3,351.9	36.0
Second Plan	710.1	700.4	1,037.9	2,440.4	5,845 9	41.7
Third Plan	1,196.0	1,302.9	2,151.2	4,650.1	10,719.5	43.4
1966-67	372.6	413.1	638.5	1,424.2	3,063 9	46.5
1967-68	415.7	479.0	492.5	1,387.2	3,221.0	43.1
1968-69	491.0	507.2	321.8	1,320.0	3,627.3	36.4
1969-70	621.7	536.1	398.3	1,556.1	4,039.1	38.5
1970-71	755.4	570.1	346.7	1,672.2	4,469.1	37.4
1971-72	945.0	923.0	357.0	2,225.0	5,305.7	41.9
1972-73 (RE)	1,066.0	953.9	786.0	2,805.9	6,346.6	44.2
1973-74 (BE)	1,136.0	853.6	478.4	2,468.0	6,701.1	36.8
Fourth Plan period	4,524.1	3,836.7	2,366.4	10,727.2	26,861.6	39.9

[1] Net of repayments. RE-Revised estimates. BE-Budget estimates.

Finance Commission

Under the Constitution, a Finance Commission is to be constituted every fifth year or at such earlier time as the President considers necessary to make recommendations to the President as to (i) the distribution between the union and the states of the net proceeds of taxes as enumerated in the Constitution and the allocation between the states of the respective shares of such proceeds; (ii) the principles which should govern the grants-in-aid of the revenues of the states out of the Consolidated Fund of India; and (iii) any other matter referred to the Commission by the President in the interests of sound finance. The recommendations of the Commission together with any explanatory memorandum as to the action taken thereon are laid before each House of Parliament.

The Sixth Finance Commission was appointed in June 1972. For the first time, the Commission was asked to go into the question of the non-plan capital gap of the states and also to review their debt position. The Commission, which presented its report on 28 October 1973, has recommended changes in the existing terms of repayment of central loans outstanding at the end of 1973-74; this will provide the states with a debt relief of about Rs 1,970 crores over a period of five years ending 1978-79 and would cover the bulk of the non-plan capital gaps of most states during the Fifth Plan period. The grants-in-aid to states are to rise from Rs 711 crores during the five years ended 1973-74 to Rs 2,510 crores during the five years ending 1978-79. The share of states in the income-tax pool has been raised from 75 per cent to 80 per cent. It has also recommended states' sharing in auxiliary union excise duties also from 1976-77 onwards, their share being 20 per cent of the net proceeds as in the case of the basic excise duties. It is estimated that during the Fifth Plan period, the transfer of resources to states by way of their share in central taxes and duties would amount to Rs 7,099 crores as against Rs 4,605 crores during the preceding five-year period.

Budgetary Position

Table 12.2 shows the budgetary position of the Government of India and Table 12.3 gives the consolidated budgetary position of the states and union territories for selected years since 1950-51.

Annual Financial Statement or Budget

An estimate of all anticipated revenue and expenditure of the union government for the ensuing financial year is laid before Parliament on the last working day of February every year. This is known as the 'Annual Financial Statement' or the 'Budget' and covers the central government's transactions of all kinds in and outside India occurring during the year in which the statement is prepared as well as the ensuing year or the Budget year as it is known.

The presentation of the Annual Financial Statement is followed by a general discussion in both the Houses of Parliament. The estimates of expenditure are then placed before the Lok Sabha in the form of 'Demands for Grants.' Ordinarily, a separate 'Demand' is made for each Ministry. All withdrawals of money from the Consolidated Fund are thus authorised by an Appropriation Act passed by Parliament every year. The tax proposals of the Budget are embodied in another bill which is passed as the 'Finance Act' of the year.

Estimates of receipts and expenditure are similarly presented by state governments to their legislatures before the beginning of the financial year and legislative sanction for expenditure is secured through similar procedure.

Audit

The Constitution requires that the audit authorities, who are independent of the executive, should scrutinise the expenditure of the central and state governments and ensure that this is strictly within the limits of their competence. It further enjoins that an account of the expenditure of each government should be approved by its legislature.

Budget Estimates 1974-75

The budget estimates for 1974-75, as presented to Parliament on 28 February 1974 placed expenditure on revenue account at Rs 6,080.28 crores, including states' share of union excise duties, as compared to Rs 5,585.45 crores (revised) in 1973-74 and revenue at Rs 6,312.16 crores (including the union's share of the proposed additional taxation amounting to Rs 185 crores) as compared to Rs 5,733.65 crores (revised) in the previous year, resulting in an anticipated surplus of Rs 231.88 crores. However, taking into account the capital transactions, this surplus has been turned into a deficit of Rs 126.14 crores (after allowing for the post-budget concessions).

With a view to containing the level of budget deficit within the provision of Rs 126 crores, a supplementary budget was presented on 31 July 1974 to mobilize an additional Rs 232 crores in a full year (Rs 136 crores in the remaining months of 1974-75). Apart from increasing the rates of taxes on a number of items, this budget has imposed a tax at the rate of 7 per cent on the gross interest earned by scheduled banks on loans and advances made in India. The implication of this measure is that there will be an increase of one per cent on an average in the interest on bank advances.

TABLE 12.2

BUDGETARY POSITION OF THE GOVERNMENT OF INDIA

(*Rs crores*)

Major head	1950-51	1955-56	1960-61	1965-66	1971-72	1972-73 (Revised)	1973-74[1] (Budget)
I. *Revenue account*							
A. Revenue[2]	405.86	481.19	877.46	2,320.39	3,971.8	4,573.2 (4,414.8)	4,762.4 (5,012.0)
B. Expenditure[3]	346.64	440.74	826.21	2,000.63	4,071.8	4,535.8	4,682.9
C. Surplus (+) or deficit (—)	+59.22	+40.45	+51.25	+319.76	—100.0	+37.4 (— 121.0)	+79.5 (+329.1)
II. *Capital account*							
A. Receipts[4,5]	106.03	288.37	1,155.80	1,705.49	3,029.1	3,164.0	3,260.9
B. Disbursements	184.17	478.34	1,029.33	2,222.42	3,450.2	3,765.6	3,690.5
C. Surplus (+) or deficit (—)	—78.14	—189.97	+126.47	—516.93	—421.1	—601.6[8]	—429.6
III. *Miscellaneous (net)*[6]	+15.26	— 10.35	—60.87	+24.39	+1.8	+14.1	+15.2
IV. *Overall surplus (+) or deficit (—)* (IC+IIC+III)	—3.66	— 159.87	+116.85	—172.78	— 519.3	—550.1[8] —718.5	—334.9 (— 85.3)
Financed by:							
A. Treasury bills' increase (+) or decrease (—)	+16.10	+123.38	—141.31	+218.32	—349.6	—544.8[8]	—85.4
B. Cash balances increase (+) or decrease (—)	—12.44	+36.49	+24.46	—45.54	—169.7	—5.3	+0.1
(i) Opening balance	149.50	32.23	69.67	—2.00	230.1	60.4	55.1
(ii) Closing balance	161.94	—4.26	45.21	43.54	60.4	55.1	55.2

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[1] At 1972-73 rates of taxation. The effect of additional taxation, adjusted for post-budgetary concessions, is given in brackets. Details of financing are in respect of overall deficit after taking credit for additional taxation.

[2] Excluding states' share of excise duties and other taxes. [3] Excluding the payment of states' share of excise duties and additional excise duties. [4] Excluding treasury bills receipts. [5] Excluding *ad hoc* treasury bills of Rs 50 crores in 1960-61, Rs 50 crores in 1965-66 and Rs 100 crores each in 1971-72 and 1972-73 (Revised), funded in January 1961, February 1966, and December 1971 and 1972 respectively. [6] Including remittances, transfer of cash between England and India and Reserve Bank deposits. [7] Mostly sold to the Reserve Bank of India. [8] Excludes the assistance of Rs 421.1 crores given to states for clearing their overdrafts with the Reserve Bank as at the end of April 1972.

TABLE 12.3

CONSOLIDATED BUDGETARY POSITION OF STATES AND UNION TERRITORIES

(*Rs crores*)

Major head	1950-51	1955-56	1960-61	1965-66	1971-72	1972-73 (Revised)	1973-74 (Budget)
I. *Revenue account*							
Revenue ..	375.8	569.1	1,041.4	1,867.1	4,098.9	4,607.3	5,019.3
Expenditure ..	373.8	614.0	1,016.2	1,901.2	4,089.9	4,851.9	5,288.3
Surplus (+) or deficit (—) ..	+2.0	—44.9	+25.2	—34.1	+9.0	—244.6	—269.0
II *Capital account*							
Receipts ..	112.6	323.9	427.8	928.6	767.8	1,519.1[1]	1,258.0
Disbursements ..	99.2	269.0	452.0	982.5	1,077.4	1,404.4	1,211.0
Surplus (+) or deficit (—) ..	+13.4	+54.9	—24.2	—53.9	—309.6	+114.7	+47.0
III. *Overall surplus (+) or deficit (—)*	+15.4	+10.0	+1.0	—88.0	—300.6	—129.9	—222.0
Financed by:							
A. Ways and means advances from Reserve Bank of India (net) ..	—4.6	..	+3.2	+14.0	+226.1	+134.9	..
B. Drawals from cash balances	—10.8	—10.0	—4.2	+74.0	+74.5	—5.0	+222.0

[1] Excludes Rs 421.1 crores of loan assistance received from the central government for clearing the overdrafts with the Reserve Bank of India.

Rates of Income Tax

Table 12.4 gives the comparative incidence of income tax at selected levels of income of individuals at 1974-75 tax rates.

TABLE 12.4
INCIDENCE OF INCOME TAX AT SELECTED LEVELS

Income (Rs)	Tax (including surcharge) (Rs)	Effective rate (%)
5,000	Nil	Nil
6,000	Nil	Nil
7,500	198	2.64
10,000	528	5.28
12,500	941	7.52
15,000	1,353	9.02
20,000	2,453	12.26
25,000	4,103	16.41
40,000	11,803	29.51
50,000	17,303	34.61
60,000	23,903	39.84
70,000	30,503	43.58
80,000	38,203	47.75
90,000	45,903	51.00
1,00,000	53,603	53.60
1,50,000	92,103	61.40
2,00,000	1,30,603	65.30
2,50,000	1,69,103	67.64
3,00,000	2,07,603	69.20
5,00,000	3,61,603	72.32
10,00,000	7,46,603	74.66

Direct Taxation

The number of persons paying income tax, wealth tax and gift tax as on 31 March 1974 was 35,30,724, 2,17,683 and 74,293 respectively. Net collections from income tax in 1973-74 amounted to Rs 1,278.50 crores; from wealth tax Rs 38.80 crores; from gift tax Rs 4.73 crores and estate duties Rs 11.70 crores.

Direct Taxes Enquiry Committee

The Direct Taxes Enquiry Committee headed by Justice K.N. Wanchoo, a former Chief Justice of India, made a large number of legislative and administrative recommendations in its final report to tackle the problem of black money and tax evasion. The Taxation Laws (Amendment) Bill, 1973 was introduced in Parliament in May 1973 to give effect to several recommendations contained in the report as well as in the 47th report of the Law Commission on Trial and Punishment of Social and Economic Offences. The Bill seeks to amend the Income tax Act, 1961, the Wealth Tax Act, 1957, the Gift Tax Act, 1958 and the Companies (Profits) Sur-tax Act, 1964. The main objectives of the Bill are to unearth black money and prevent its proliferation, to curb tax evasion and avoidance, to reduce tax arrears, to rationalise tax exemptions and deductions and to streamline the tax administration.

Committee on Taxation of Agricultural Income and Wealth

The Committee on Taxation of Agricultural Income and Wealth submitted its report in October 1972. With a view to reducing income disparities, the Committee suggested, among other things, aggregation of both the agricultural and non-agricultural components of a tax-payer's income for purposes of determining the rates of income tax applicable to the non-agricultural portion in cases where the tax-payer has non-agricultural income exceeding the exemption limit of Rs 5,000. This recommendation has been implemented.

PUBLIC DEBT

The outstanding public debt of the Government of India was estimated at Rs 17,058.23 crores at the end of 1973-74 and is estimated to be Rs 18,412.20 crores at the end of 1974-75. Table 12.5 gives an ana-

TABLE 12.5

PUBLIC DEBT OF THE GOVERNMENT OF INDIA

(*Rs crores*)

Particulars	As at the end of				
	1950-51	1960-61	1965-66	1973-74 (Revised)	1974-75 (Budget)
I. Debt raised in India					
(a) *Permanent debt*					
(i) Current loans	1,438.46	2,555.72	3,417.28	5,851.56	6,338.63
(ii) Compensation bonds	—	—	—	83.80	83.80
(iii) Prize bonds	—	15.63	11.35	1.00	0.80
(iv) 15-year annuity certificates	—	3.45	3.78	1.80	1.40
(v) Loans in course of repayment ..	6.49	22.73	33.72	61.68	61.68
TOTAL PERMANENT DEBT	1,444.95	2,597.53	3,466.13	5,999.84	6,486.31
(b) *Floating debt*					
(i) Treasury bills	358.02	1,106.29	1,611.82	4,498.39	4,809.39
(ii) Special floating loans	212.60	274.18	340.70	730.09	734.12
(iii) Treasury deposit receipts and other floating loans	6.73	—	—	—	—
TOTAL FLOATING DEBT	577.35	1,380.47	1,952.52	5,228.48	5,543.51
TOTAL DEBT RAISED IN INDIA ..	2,022.30	3,978.00	5,418.65	11,228.32	12,029.82
II. Debt raised outside India	32.03	760.96	2,590.62	5,829.91	6,382.38
TOTAL PUBLIC DEBT	2,054.33	4,738.96	8,009.27	17,058.23	18,412.20

TABLE 12.6

DEBT POSITION OF STATES

(*Rs crores*)

Particulars	As at the end of					
	1951-52	1965-66	1969-70	1971-72	1972-73 (Revised)	1973-74 (Budget)
I. *Public debt*						
(i) Permanent debt[1]	134	827	1,131	1,332	1,462	1,661
(ii) Floating debt[2]	16	189	182	600	296	304
(iii) Loans from central government	241	4,110	5,987	6,756	8,010	8,536
(iv) Other debt[3]	—	162	229	258	302	342
II. *Unfunded debts*[4]	58	231	453	622	724	827
TOTAL DEBT	449	5,519	7,982	9,568	10,794	11,670

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[1] Represents current and expired loans floated in the market and zamindari/jagirdari abolition bonds.

[2] Represents mainly ways and means advances from the Reserve Bank of India.

[3] Includes loans from the National Agricultural Credit (Long-term operations) Fund of RBI, National Co-operative Development Corporation, Khadi and Village Industries Commission, Employees' State Insurance Corporation, Central Warehousing Corporation of India, State Bank of India, etc.

[4] Includes state provident funds, postal insurance and life annuity funds, family pension fund, staff benefit fund and special loans consisting generally of endowments for specific purposes of a religious and charitable nature.

lysis of the public debt outstanding at the end of selected years since 1950-51.

Table 12.6 shows the debt position of state governments.

MONEY SUPPLY AND CURRENCY

Money supply comprises currency with the public and such of the deposit money with the banking system, including the Reserve Bank of India, as is withdrawable 'On demand'. The total supply of money with the public thus stood at Rs 10,160.7 crores at the end of 1973 of which currency with the public accounted for Rs 5,799.1 crores and deposit money Rs 4,361.6 crores. In 1973, money supply registered an increase of Rs 1,444.8 crores as compared with a rise of Rs 996.0 crores in 1972. Component-wise, both currency with the public and deposit money recorded increases of Rs 871.6 crores and Rs 573.2 crores respectively during 1973 as compared with the rise of Rs 350.5 crores and Rs 645.5 crores respectively in 1972. The trends in money supply and its components since 1961 are indicated in Table 12.7.

TABLE 12.7
Money Supply with Public

(*Rs crores*)

End of December	Currency with the public		Deposit money with the public		Money supply with the public	
	Amount	Annual variation	Amount	Annual variation	Amount	Annual variation
1961	2,059.5	+ 92.1	774.7	+ 36.9	2,834.2	+129.0
1962	2,246.3	+186.8	867.6	+ 92.9	3,113.9	+279.7
1963	2,475.8	+229.5	1,065.4	+197.8	3,541.2	+427.3
1964	2,661.1	+185.3	1,244.9	+179.5	3,906.0	+364.8
1965	2,865.0	+203.9	1,435.6	+190.7	4,300.6	+394.6
1966	3,008.1	+143.1	1,673.1	+237.5	4,681.2	+380.6
1967	3,209.8	+201.7	1,892.0	+218.9	5,101.8	+420.6
1968	3,372.2	+162.4	2,016.7	+124.7	5,389.0	+287.0
1969	3,763.6	+391.4	2,272.3	+255.6	6,036.0	+647.0
1970	4,170.0	+406.4	2,624.4	+352.1	6,794.4	+758.4
1971	4,577.0	+407.0	3,142.9	+518.5	7,719.9	+925.5
1972[1]	4,927.5	+350.5	3,788.4	+645.5	8,715.9	+996.0
1973[1]	5,799.1	+871.6	4,361.6	+573.2	10,160.7	+1,444.8

[1] Provisional.

The rise in money supply during 1973 was mainly due to increase in net bank credit to the government sector. Net bank credit to the government sector increased by Rs 1,250 crores during the year as compared to a rise of Rs 1,268 crores in 1972. Net bank credit to the commercial sector increased by Rs 455 crores as against a contraction of Rs 81 crores in 1972. Net foreign exchange assets of the banking sector increased by Rs 19 crores in 1973 against a decline of Rs 75 crores in 1972.

The other factor which contributed to the rise in money supply was an increase of Rs 45 crores in government's net currency liabilities to the public and this increase was higher than that of Rs 37 crores in the preceding year.

Currency

During 1973, currency in circulation[1] registered an expansion of Rs 889.88 crores (to Rs 6,080.20 crores) as compared with Rs 412.26 crores in the preceding year. Between 1961 and 1973 currency in circulation expanded by Rs 3,959.7 crores or by 186.7 per cent.

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[1] Figures are inclusive of notes, rupee coins (including one rupee notes) and small coins held by banks and at treasuries but exclusive of Rs 43 crores of Indian notes received from Pakistan and awaiting cancellation.

Of the expansion of Rs 889.88 crores in currency in circulation during 1973, bank notes accounted for an increase of Rs 844.85 crores, the expansion in 1972 under this head being Rs 347.82 crores. Rupee coins in circulation (inclusive of one rupee notes) were higher by Rs 30.47 crores as compared with an increase of Rs 22.09 crores in the preceding year. Circulation of small coins rose by Rs 14.56 crores which was slightly lower than that registered in 1972 at Rs 15.35 crores. At the end of 1973, bank notes, rupee coins (including one rupee notes) and small coins in circulation stood at Rs 5,596.02 crores, Rs 308.55 crores and Rs 175.63 crores respectively.

BANKING

The commercial banking system in India consisted of 73 scheduled[1] commercial banks and 7 non-scheduled commercial banks at the end of December 1973, the former accounting for 99.4 per cent of the aggregate banking business in the country. Of the 73 scheduled commercial banks, 22 are in the public sector. In terms of business, public sector banks occupy a dominating position, their share in the entire banking system being about 85 per cent.

Table 12.8 shows some important indicators in regard to progress of commercial banking in recent years.

TABLE 12.8
PROGRESS OF COMMERCIAL BANKING

Important indicators	June 1969	June 1970	June 1971	June 1972	December 1973
Number of commercial banks	89	85	80	83	80
(i) Scheduled commercial banks	73	72	73	74	73
(ii) Non-scheduled commercial banks	16	13	7	9	7
Number of offices in India	8,262	10,131	12,013	13,620	16,503
Population per office (in thousands)	65	54	46	42	35
Aggregate deposits of scheduled commercial banks (Rs crores)	4,646	5,275	6,216	7,596	10,063
Aggregate credit of scheduled commercial banks (Rs crores)	3,599	4,213	4,763	5,466	7,042
Per capita deposit of scheduled commercial banks (Rs)	88	98	113	135	174
Per capita credit of scheduled commercial banks (Rs)	68	78	87	97	122
Deposits as percentage of national income (at current prices)	15.3	15.9	17.2	19.6	N.A.

N.A.—Not available.

Amongst the public sector banks, the State Bank is the biggest unit. Apart from the main State Bank, there are 7 other banks associated with it as subsidiaries. The State Bank and its subsidiaries account for roughly 28 per cent of the aggregate banking business in the country and 33 per cent of the business conducted by the public sector banks. The other 14 banks in the public sector are known as 'nationalised' banks. They came into the public sector on 19 July 1969. The main objective of nationalisation is to use financial institutions as the instrument for promoting economic and social development in a more purposive manner. Ever since nationalisation there has been a rapid growth of the banking network.

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[1] According to a notification under the Reserve Bank Act, banks which have not less than Rs 5 lakhs capital and reserve can alone be scheduled to the Reserve Bank.

Branch Expansion

The largest number of new branches opened in any year, prior to nationalisation, was 677 in 1968. The number of new branches opened in the years subsequent to nationalisation was 1,369 in 1969, 2,137 in 1970, 1,805 in 1971, 1,763 in 1972 and 1,782 in 1973.

As against 8,262 branches on the eve of nationalisation, the total number of commercial bank branches at the end of December 1973 was 16,503. The average population per branch for the country as a whole has been brought down from 65,000[1] on the eve of nationalisation to 35,000[2] at the end of December 1973.

In the post-nationalisation period, banking services have been taken to areas hitherto devoid of banking facilities. Of the new branches opened between 19 July 1969 and 31 December 1973, 4,526 were opened at unbanked centres.

On the eve of bank nationalisation, the number of branches in rural areas was 1,860, accounting for 22.4 per cent of the total number of branches in the country. By 31 December 1973, the number of rural branches had increased to 6,023, accounting for 36.5 per cent of the total.

Lead Bank Scheme

The Lead Bank Scheme was evolved towards the end of 1969 to give concrete shape to the idea of 'area approach' to the development of banking. To enable the banks to assume the role of leadership in an effective and systematic manner, all the districts of the country, except Calcutta, Greater Bombay and Madras, and the union territories of Chandigarh, Delhi and Goa, Daman and Diu were allotted among the public sector banks and three selected private banks. Each of these banks is expected to provide leadership to the other banks and financial institutions located in the districts allotted to it.

The Lead Banks have completed the surveys of 325 districts to locate growth centres and identify credit gaps. They have also set up district consultative bodies in 285 districts to secure greater co-ordination between all financial institutions. These bodies meet regularly at intervals of two to three months for evolving procedures for stepping up lending to priority sectors and identifying growth centres and development schemes.

Deposit Mobilisation

Deposits of all scheduled commercial banks stood at Rs 10,454 crores on 31 May 1974 as against Rs 4,646 crores on 30 June 1969, an increase of over 125 per cent. The rate of increase in 1973 was 17.5 per cent.

Deposit Insurance Corporation

To provide a measure of protection to the small depositors, a Deposit Insurance Corporation was set up in 1962. Every commercial bank in India and every eligible co-operative bank in any of the states and union territories to which the deposit insurance scheme has been extended by the central government is registered as an insured bank. There were 80 insured commercial banks and 411 insured co-operative banks on 31 December 1973. The insured limit is Rs 10,000 per depositor in all his or her accounts together. The insured banks are required to pay a premium at 0.04 per cent per annum to the Corporation on their assessable deposits.

Use of Banks' Resources

Two main uses to which deposit resources of commercial banks are put are (i) investment in government and other approved securities, and (ii) loans and advances commonly known as 'bank credit.'

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[1] Based on 1961 census.

[2] Based on 1971 census.

Bank Credit

There has been a continuous uptrend in bank credit during the years 1970-73. However, the rate of increase in bank credit slowed down somewhat in 1971, slackened further in 1972 and was in both these years lower than that for bank deposits. At the end of 1969, total bank credit stood at Rs 3,616 crores. It increased to Rs 4,452 crores by the end of 1970 and to Rs 5,052 crores by the end of 1971. During 1972, the increase was Rs 518 crores or 10.3 per cent and the outstanding bank credit at the end of the year was Rs 5,570 crores. In 1973, inspite of strict credit control measures designed to restrict rise in money supply and the pressure on prices, the increase was quite marked; the bank credit during the year rose by Rs 1,294 crores or 23.2 per cent and stood at Rs 6,864 crores at the end of December 1973. In May 1974, bank advances reached a level of Rs 7,711 crores.

Export Credit

As an incentive for export effort, the banks provide concessional finance in the form of pre-shipment and post-shipment credit. Since 19 April 1974, a ceiling on interest at 9 per cent per annum has been prescribed for all pre-shipment (packing) credits up to a period not exceeding 90 days from the date of extending such credit and for post-shipment credits, other than those provided on deferred payment terms, up to a period not exceeding 120 days in case of exports to the Western Hemisphere and 90 days to other countries from the date of extending such credit. In the event of the period of credit extending beyond the stipulated period to which ceiling rate would apply, interest rate of such extended period will be charged at not less than the minimum rate of interest, which is 11 per cent at present. The minimum interest rate to be charged on export credit allowed on deferred payment terms is 7 per cent. Banks are also eligible for interest subsidy of one and half per cent per annum under the Export Credit (Interest Subsidy Scheme), 1968 on all export credits, provided the rate of interest charged thereon does not exceed the prescribed ceiling rates. No interest subsidy is payable in respect of export credit to which ceiling rate is not applicable. During 1972-73, 42 banks including one co-operative bank, availed of interest subsidy of Rs 5.3 crores.

Credit Authorisation Scheme

To ensure proper use of bank credit, the credit authorisation scheme was introduced by the Reserve Bank of India in 1965. Under the scheme, all the scheduled commercial banks are required to obtain the Reserve Bank's prior authorisation before sanctioning any fresh credit limits (including commercial bill discounts but excluding letters of credit and guarantee limits) of Rs 1 crore or more to a single party or any limit that would take the total limit enjoyed by such party from the entire banking system (including co-operative sector) to Rs 1 crore on secured or unsecured basis. The scheme also covers individual term credit limits exceeding Rs 25 lakhs as well, where the term of repayment exceeds three years, irrespective of the totality of credit limits available to the party from the entire banking system.

During 1973-74, the scheme was extended to cover advances to public sector undertakings, including State Electricity Boards, as also advances against the guarantee of central and state governments.

Advances to Neglected Sectors

The extension of credit to small borrowers in the hitherto neglected sectors of the economy is one of the principal tasks assigned to the public sector banks. To achieve this objective the banks have drawn up schemes to extend credit to small borrowers in sectors like agriculture, small-scale industry, road transport, retail and small business, which traditionally had very little share in the credit extended by the banks. The number of borrowal accounts with the public sector banks for these categories of borrowers increased by more than eight times, *i.e.*, from 2.60 lakhs to 21.92 lakhs during June 1969-September 1973. The amount outstanding during the same period increased from Rs 441 crores to Rs 1,367 crores. The share of these sectors in the total credit at the end of September 1973 was 26.1 per cent against 14.5 per cent in June 1969.

Table 12.9 shows the achievements of the public sector banks in stepping up the flow of credit to various neglected sectors.

TABLE 12.9
CREDIT FLOW TO NEGLECTED SECTORS

Sector	No. of borrowal accounts		Amount outstanding (Rs crores)	
	June 1969	Sept. 1973[1]	June 1969	Sept. 1973[1]
Agriculture (excluding plantations)				
(a) Direct finance	1,60,020	1,41,69,82	40.21	332.01
(b) Indirect finance	4,461	1,42,109	122.12	167.76
Small scale industry	50,850	1,73,046	251.07	665.36
Road and water transport operators	2,324	50,793	5.49	70.42
Retail trade and small business	33,241	2,60,794	19.37	103.40
Professional and self employed	7,769	1,38,309	1.91	24.30
Education	1,477	11,612	0.80	3.49
TOTAL	2,60,142	21,92,365	440.97	1366.74

[1] Provisional.

Bank Finance for Agriculture

To step up the flow of credit to the agricultural sector, public sector banks have extended their geographical coverage, strengthened technical field staff and organisation structure, introduced special schemes and simplified application forms and lending procedures. They are concentrating their efforts in compact areas through intensive programmes. As part of the strategy of ‘area approach’, the State Bank of India and its subsidiaries have opened 147 agricultural development branches and financed 1,63,685 farmers up to 31 March 1974 with total outstanding of Rs 27.53 crores.

Banks have ensured that small and marginal farmers and agricultural labourers are not denied bank finance for their genuine credit requirements for want of adequate security and their credit needs are met on priority basis.

The scheme of financing primary agricultural credit societies by commercial banks has been extended to more states and is in operation in Andhra Pradesh, Bihar, Haryana, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh and West Bengal.

Credit Guarantee Corporation of India

To encourage banks to undertake financing of small borrowers on a much larger scale without any excessive risks, the government set up the Credit Guarantee Corporation of India in 1971 to provide guarantee cover to the banks in respect of small loans. The Corporation operates three types of guarantee schemes, *viz.*, (i) Small Loans Guarantee Scheme, (ii) Small Loans (Financial Corporations) Guarantee Scheme, and (iii) Service Co-operative Societies Guarantee Scheme.

The credit facilities covered under the various schemes for the

Corporation at the end of December 1972, amounted to Rs 172.65 crores under the Small Loans Guarantee Scheme.

Co-ordination among Public Sector Banks

For better co-ordination among public sector banks, six regional consultative committees, consisting of representatives of state governments and union territories and chairmen of nationalised banks have been constituted. These committees review banking development in their respective regions. Similarly, state-level co-ordination committees have been set up.

Board of Directors of Public Sector Banks

In the new Boards of Directors of nationalised banks, representatives of staff and bank officers have also been associated in the capacity of Directors. The new Boards of Directors include experts from different fields such as agriculture, small industries and handicrafts.

Differential Interest Rate Scheme

To help the weaker sections of society, a pilot scheme of differential interest rate was started in 1972 under which public sector banks make funds available to certain categories of borrowers in industrially backward districts at a concessional rate of 4 per cent for their productive endeavours.

The scheme was modified in 1973 to cover all backward districts. The banks had lent Rs 10 crores to 2,27,138 borrowers by 31 December 1973.

Foreign Branches of Indian Banks

Fifty six branches of eight Indian commercial banks were operating in foreign countries during 1973-74, the largest concentration being in UK, Fiji, Kenya, Mauritius and Singapore. These banks mainly cater to the demands of trade and commerce between India and these countries and also meet the needs of the sizeable populations of Indian origin in these countries.

CORPORATE SECTOR

The number of joint stock companies incorporated under the Companies Act, 1956 and at work in India on 31 March 1974 was 39,629.

TABLE 12.10
COMPANIES AT WORK

As on 31 March	Companies with share capital						Associations not for profit (registered mostly as companies limited by guarantee)
	Public		Private		Total		
	No.	Paid-up capital (Rs crores)	No.	Paid-up capital (Rs crores)	No.	Paid-up capital (Rs crores)	No.
1951	12,568	566.5	15,964	208.9	28,532	775.4	1,213
1956	9,575	690.4	20,299	333.8	29,874	1,024.2	1,394
1961	6,702	948.2	19,447	870.3	26,149	1,818.5	1,169
1966	6,392	1,465.7	20,286	1,579.2	26,678	3,044.9	1,161
1967	6,543	1,669.2	20,484	1,731.8	27,027	3,401.3	1,152
1968	6,569	1,783.4	20,775	1,890.4	27,344	3,673.8	1,160
1969[1]	6,535	1,833.9	21,438	2,026.4	27,973	3,860.3	1,188
1970[1]	6,517	1,870.8	22,443	2,107.5	28,960	3,978.3	1,206
1971[1]	6,534	1,908.3	23,878	2,393.1	30,412	4,301.4	1,220
1972[1]	6,678	1,956.1	25,885	2,696.7	32,563	4,652.8	1,242
1973[1]	6,841	2,059.0	28,032	3,286.1	34,873	5,345.1	1,262
1974[1]	7,175	2,124.9	31,160[2]	3,534.8	38,335[2]	5,659.7	1,294

[1] Provisional.

[2] Includes one company with unlimited liability having authorised capital of Rs 15.0 lakhs registered during October 1973 in Delhi.

The total paid-up capital of the companies limited by shares, which numbered 38,334, amounted to Rs 5,659.7 crores. Of these, 7,175 were public limited and 31,159 were private limited companies having a paid-up capital of Rs 2,124.9 crores and Rs 3,534.8 crores respectively.

Table 12.10 shows the number and paid-up capital of the companies functioning in 1951, 1956, 1961 and 1966 to 1974.

Table 12.11 shows the region/state-wise distribution of companies at work on the basis of the location of their registered offices and of the new companies registered during April 1973 to March 1974. During this period, 3,776 companies limited by shares, with an authorised capital of Rs 1,021.9 crores, were registered under the

TABLE 12.11
REGION/STATE-WISE DISTRIBUTION OF COMPANIES AT WORK

Region/State	Companies at work as on 31 March 1974		Companies registered during April 1973-March 1974	
	No.	Paid-up capital (Rs. crores)	No.	Authorised capital (Rs crores)
Eastern Region				
Assam, Meghalaya, Arunchal Pradesh, Mizoram	532	63.2	76	57.7
Bihar	604	1,562.7	120	19.0
Manipur	7	0.1	1	2.0
Nagaland	11	5.4	—	—
Orissa	260	54.3	24	32.2
Tripura	8	0.1	2	1.0
West Bengal	10,215	749.5	582	370.1
Andaman & Nicobar Islands	1	—	1	—
TOTAL	11,638	2,435.3	806	482.0
Northern Region				
Haryana	341	16.8	34	18.1
Himachal Pradesh	86	6.1	15	7.0
Jammu & Kashmir	115	15.9	11	1.4
Punjab	1,047	22.2	135	10.7
Rajasthan	624	63.4	70	6.1
Uttar Pradesh	1,707	120.2	183	33.4
Chandigarh	120	14.5	25	14.3
Delhi	4,300[1]	584.2	595[1]	62.0
TOTAL	8,340[1]	843.3	1,068[1]	153.0
Southern Region				
Andhra Pradesh	994	195.2	115	53.5
Karnataka	1,409	292.4	202	36.8
Kerala	1,265	151.3	99	11.4
Tamil Nadu	3,460	398.8	247	52.7
Pondicherry	64	2.4	4	0.1
TOTAL	7,192	1,040.1	667	154.5
Western Region				
Gujarat	1,945	251.5	246	71.7
Madhya Pradesh	540	115.1	92	11.5
Maharashtra	8,507	957.4	874	146.8
Goa, Daman and Diu	173	17.0	24	2.6
TOTAL	11,165	1,341.0	1,236	232.6
GRAND TOTAL	38,335[1]	5,659.7	3,777[1]	1,022.1

[1] Includes one company registered with unlimited liability in Delhi in October 1973 having authorised capital of Rs 15.0 lakhs.

Companies Act, 1956. Of these, 384 companies were public limited and 3,392 were private limited having an authorised capital of Rs 326.3 crores and Rs 695.6 crores respectively.

Capital Issues and Project Costs

During 1973-74, 131 non-government non-financial public limited companies issued capital through prospectuses amounting to Rs 61.66 crores. Of this, Rs 55.04 crores were issued in the form of share capital (Rs 48.03 crores as equity and Rs 7.01 crores as preference shares) and Rs 5.62 crores as debentures and Rs 1 crore as convertible bonds. As compared to this, 61 companies had issued capital amounting to Rs 55.36 crores—Rs 37.36 crores in the form of shares and Rs 16 crores as debentures and Rs 2 crores as convertible bonds—during 1972-73. There was, thus, a rise of Rs 6.30 crores in the amount of capital issued during 1973-74. Out of the total capital issued during 1973-74, Rs 51.48 crores (83.5 per cent) was offered to the public, of which Rs 49.20 crores (95.6 per cent) was underwritten. The total project cost of these companies issuing capital during the year was estimated to be about Rs 220.40 crores as compared to Rs 279.58 crores in the preceding year.

Companies which Ceased to Work

The number of companies which went into liquidation or were struck off under section 560(5) of the Companies Act, 1956 or otherwise became defunct or ceased to work during 1973-74 was 315. Comparative figures for earlier years were: 1965-66—915, 1966-67—802, 1967-68—627, 1968-69—588, 1969-70—523, 1970-71—472, 1971-72—373 and 1972-73—550.

Government Companies

Table 12.12 gives the number and paid-up capital of government companies at work between 1962 and 1974.

TABLE 12.12
GOVERNMENT COMPANIES AT WORK

As on 31 March	Public		Private		Total	
	No.	Paid-up capital (Rs crores)	No.	Paid-up capital (Rs crores)	No.	Paid-up capital (Rs crores)
1962	41	23.5	113	606.2	154	629.7
1963	42	27.4	118	758.8	160	786.2
1964	50	39.4	126	921.4	176	960.8
1965	54	51.5	129	1,062.8	183	1,114.3
1966	63	58.4	149	1,179.5	212	1,237.9
1967	65	77.1	167	1,314.4	232	1,391.5
1968	72	99.1	169	1,460.2	241	1,559.3
1969	81	121.9	178	1,573.0	259	1,714.9
1970	81	130.2	201	1,660.4	282	1,790.6
1971	91	133.2	223	1,931.3	314	2,064.5
1972[1]	107	156.0	245	2,213.1	352	2,369.1
1973[1]	126	219.0	264	2,779.4	390	2,998.4
1974[1]	148	242.7	301	2,987.0	449	3,229.7

[1] Provisional.

Foreign Companies

On 31 March 1974, there were 540 foreign companies in India as defined under section 591 of the Companies Act, 1956 (*i.e.*, joint stock companies incorporated abroad but having a place of business in India). The distribution of these companies according to their country of origin was—UK 319; USA 88; Japan 21; West Germany 12; Pakistan 6; Switzerland 11; France 8; Hongkong 6; Bangladesh 6; Canada 7; Holland 6; Italy and Sweden 5 each; Australia 4; Belgium, Nepal, Yugoslavia, Uganda, New Zealand and Singapore 3 each;

Panama, Bahamas, Thailand and Lebanon 2 each; Sri Lanka, Kenya, Kuwait, Liberia, Luxembourg, Philippines, Tanzania, Iran, Aden, and Greece 1 each.

INSURANCE

LIFE INSURANCE

The Life Insurance Corporation of India came into existence on 1 September 1956. The Corporation had 38 divisional offices, 577 branch offices, 40 sub-offices and 106 development centres in India on 31 March 1973.

Business by LIC

During 1972-73, LIC issued 20.23 lakh new policies assuring Rs 2,075 crores as against 19.01 lakh policies assuring Rs 1,640 crores issued during 1971-72—an increase of 6.4 per cent in the number of policies and an increase of 26.5 per cent in sum assured. Of the total number of policies, 6,43,284 policies assuring Rs 441.45 crores were issued in rural areas and 9,98,243 policies assuring Rs 429.64 crores were issued under the non-medical schemes.

The Life Insurance business in force at the end of each of the five accounting periods from 1969 is given below:

TABLE 12.13
LIFE INSURANCE—TOTAL BUSINESS

On 31 March	In India		Out of India		Total	
	No. of policies (lakhs)	Sums assured & bonuses (Rs crores)	No. of policies (lakhs)	Sums assured & bonuses (Rs crores)	No. of policies (lakhs)	Sums assured & bonuses (Rs crores)
1969	133.44	5,551	1.08	120	134.52	5,671
1970	139.39	6,226	1.02	122	140.41	6,348
1971	146.92	6,952	0.92	115	147.85	7,067
1972	157.11	8,082	0.88	120	157.99	8,202
1973	167.92	9,204	0.84	121	168.76	9,325

Working Results

On 31 March 1973, the total income of the Corporation after deduction of income tax at source amounted to Rs 526.02 crores of which the premium income accounted for Rs 389.73 crores. The total outgo amounted to Rs 233.89 crores. The Life Fund stood at Rs 2,358.69 crores on 31 March 1973.

Financing of Housing Schemes

Loans amounting to Rs 16 crores were advanced by LIC to state governments for financing various housing schemes during 1972-73. A sum of Rs 33.75 crores was advanced to the apex co-operative housing finance societies and other authorities for financing housing co-operatives in various states.

The 'Own Your Home' scheme is in operation at all places where the Corporation has either a branch office or a sub-office. During 1972-73, 1,735 loans amounting to Rs 5.18 crores were sanctioned to policy-holders for construction or purchase of houses.

Other schemes for financing house construction include (i) loans to public limited companies for the purpose of providing houses to their employees; and (ii) loans to co-operative housing societies of employees of (a) public limited companies, and (b) public sector undertakings.

The Corporation also grants loans to co-operative housing societies formed by its own employees and also to individual employees for purchase or construction of houses. The Corporation has started construction of a township at Jeevan Bima Nagar at Borivli, a suburb of Bombay where the first phase of 1,120 flats has been completed and the second phase providing 500 flats is nearing completion. The Corporation has also undertaken the construction of another township at Bangalore.

The total assistance given by the Corporation for the development of housing in India by way of loans to state governments and apex co-operative housing finance societies and loans under other schemes up to 31 March 1973 amounted to over Rs 425 crores. This included expenditure by the Corporation on its own building construction.

Investment

The total book value of the investments of the Corporation at the end of March 1973 amounted to Rs 2,172.31 crores.

GENERAL INSURANCE

The process of nationalisation of general insurance business, which was initiated with the take-over on 13 May 1971 of the management of the undertakings of Indian and foreign insurers, was completed on 1 January 1973. On that day the shares of Indian insurance companies and the undertakings of other insurers, namely, mutual companies, co-operative societies, the General Insurance Department of the Life Insurance Corporation and foreign insurers, were acquired under the General Insurance Business (Nationalisation) Act, 1972. The law provides for payment of amounts totalling Rs 38.05 crores for the acquisition of these shares and undertakings.

In pursuance of the Insurance Business (Nationalisation) Act, the General Insurance Corporation of India was registered as a government company on 22 November 1972 for the purpose of superintending, controlling and carrying on general insurance business. The authorised capital of the Corporation is Rs 75 crores and its paid-up capital on 31 March 1974 was Rs 32.19 crores.

On 1 January 1973, the Indian insurance companies became subsidiaries of the Corporation and the undertakings of the remaining insurers were transferred to one or other of these companies. On 1 January 1974 all the nationalised general insurance companies were merged into four subsidiaries of the Corporation. The General Insurance Corporation and its subsidiaries have the exclusive privilege of carrying on general insurance business in India. However, some state governments (Gujarat, Karnataka, Kerala and Maharashtra) continue to carry on their existing lines of insurance business in respect of the properties belonging to them and their undertakings, semi-government bodies and boards and also to undertakings in which the state governments have substantial financial interest.

13 PLANNING

Planning in India derives its objectives and social premises from the Directive Principles of State Policy set forth in the Constitution. The public and private sectors of the economy are viewed as complementary. The private sector covers not only organised industry but also small-scale industries, agriculture, trade and a great deal of activity in housing and construction and other fields. Individual effort and private initiative are considered both necessary and desirable, the policy being to assist development on the basis of voluntary co-operation to the utmost extent. Economic planning also envisages a growing public sector with massive investments in basic and heavy industries.

The Government of India appointed a Planning Commission in 1950 to prepare a blueprint of development taking an overall view of the needs and resources of the country. The composition of the Commission on 4 January 1975 was as follows:

Smt Indira Gandhi	Prime Minister and Chairman
P.N. Haksar[1]	Deputy Chairman
C. Subramaniam	Minister of Finance
V.C. Shukla	Minister of State for Planning
S. Chakravarty[1]	Member
B. Sivaraman[1]	Member

THE FIRST FOUR PLANS

Objectives

The First Five Year Plan (1951-52 to 1955-56) had a two-fold objective: to correct the disequilibrium in the economy caused by the Second World War and the partition of the country and to initiate simultaneously a process of all-round balanced development which would ensure a rising national income and a steady improvement in the living standards over a period of time. Since the country had to import foodgrains on a large scale in 1951 and there were inflationary pressures in the economy, the plan accorded the highest priority to agriculture, including irrigation and power projects. About 44.6 per cent of the total outlay of Rs 2,069 crores in the public sector (later raised to Rs 2,356 crores) was allotted for their development. The plan also aimed at increasing the rate of investment from 5 per cent to about 7 per cent of the national income.

In 1954, Parliament declared that the broad objective of economic policy should be to achieve a 'socialist pattern of society' under which the basic criteria for determining the lines of advance would be social gain and greater equality in incomes and wealth and not private profit. The Second Five Year Plan (1956-57 to 1960-61), therefore, sought to promote a pattern of development which would ultimately lead to the establishment of a socialistic society in India. In particular, it stressed that the benefits of economic development should accrue more to the relatively less privileged sections of society, and there should be a progressive reduction in the concentration of incomes, wealth and economic power.

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[1] Shri P. N. Haksar is also chairman of the National Committee on Science and Technology, vice-president of the Council of Scientific and Industrial Research and member of the Atomic Energy Commission as well as of the Space Commission. Prof. S. Chakravarty came to the Planning Commission from the Delhi School of Economics. Shri B. Sivaraman was previously Secretary to the Government of India in the Ministry of Agriculture, Cabinet Secretary and vice-chairman of the Agricultural Prices Commission.

The main aims of the plan were: (i) an increase of 25 per cent in the national income; (ii) rapid industrialisation with particular emphasis on the development of basic and heavy industries; (iii) large expansion of employment opportunities; and (iv) reduction of inequalities in income and wealth and a more even distribution of economic power. The plan also aimed at increasing the rate of investment from about 7 per cent of the national income to 11 per cent by 1960-61. The plan laid special stress on industrialisation—increased production of iron and steel, heavy chemicals, including nitrogenous fertilizers and development of heavy engineering and machine-building industry.

The Third Five Year Plan (1961-62 to 1965-66) aimed at securing a marked advance towards self-sustaining growth. Its immediate objectives were to: (i) secure an increase in the national income of over 5 per cent per annum, and at the same time ensure a pattern of investment which could sustain this rate of growth during subsequent plan periods; (ii) achieve self-sufficiency in foodgrains and increase agricultural production to meet the requirements of industry and exports; (iii) expand basic industries like steel, chemicals, fuel and power and to establish machine-building capacity, so that the requirements of further industrialisation could be met within a period of ten years or so mainly from the country's own resources; (iv) utilise fully the man-power resources of the country and ensure a substantial expansion in employment opportunities; and (v) establish progressively greater equality of opportunity and bring about reduction in disparities of income and wealth and a more even distribution of economic power. The national income was to increase by about 30 per cent from Rs 14,500 crores in 1960-61 to about Rs 19,000 crores by 1965-66 (at 1960-61 prices) and per capita income by about 17 per cent, from Rs 330 to Rs 385 during the same period.

The situation created by the Indo-Pakistan conflict, two successive years of severe drought, devaluation of the currency, general rise in prices and erosion of resources available for plan purposes delayed finalisation of the Fourth Five Year Plan. Instead, between 1966 and 1969, three Annual Plans were formulated within the framework of the Draft Outline of the Fourth Plan. They took into account the conditions prevailing at the time. The state of the economy and the non-availability of financial resources for plan purposes kept down the size of development outlay during this period.

The Fourth Plan (1969-74) aimed at accelerating the tempo of development in conditions of stability and at reducing fluctuations in agricultural production as well as the impact of uncertainties of foreign aid. It aimed at raising the standard of living of the people through programmes which at the same time were designed to promote equality and social justice. The plan laid particular emphasis on improving the condition of the less privileged and weaker sections of the society, especially through the provision of employment and education. Efforts were also directed towards reduction of concentration and a wider diffusion of wealth, income and economic power.

The plan aimed at increasing the net domestic product at 1968-69 factor cost from Rs 29,071 crores in 1969-70 to Rs 38,306 crores in 1973-74. In terms of 1960-61 prices, this implied an increase from Rs 17,351 crores in 1968-69 to Rs 22,862 crores in 1973-74. The average annual compound rate of growth envisaged was 5.7 per cent.

Outlay and Investment

The public sector outlay as planned in the First, Second and Third Plans was Rs 2,356 crores, Rs 4,800 crores and Rs 7,500 crores while the actual expenditure was Rs 1,960 crores, Rs 4,672 crores and Rs 8,577 crores respectively. The investment by the private sector in the First, Second and Third Plans was Rs 1,800 crores, Rs 3,100 crores and Rs 4,190 crores respectively. The total public sector outlay during the three annual plans was Rs 6,756.50 crores. The Fourth Plan outlay envisaged originally was Rs 24,882 crores. It consisted of the public sector outlay of Rs 15,902 crores (including Rs 13,655 crores investment) and private sector investment of Rs 8,980 crores. A mid-term review of the plan was made in 1971 and the outlay for the public sector was revised to Rs 16,201 crores.

The distribution of public sector outlay during the first four plans and the financing of plan outlays in the public sector are indicated in Tables 13.1 and 13.2.

Achievements

During the First Plan, owing largely to increase in agricultural production, the national income went up by 18 per cent as against the target of 12 per cent. The increase in the Second Plan was 20 per cent as against the target of 25 per cent. In the Third Plan, national income (revised series) at 1960-61 prices rose by 20 per cent in the first four years but declined by 5.7 per cent in the last year. Per capita real income in 1965-66 remained the same as in 1960-61 owing to a 2.5 per cent rise in population.

The index of agricultural production at 1950-51 base rose to 122.2 at the end of the First Plan and 148.7 at the end of the Second Plan. In the Third Plan, the performance of agriculture was not satisfactory. Widespread drought in 1965-67 slowed down the rate of growth and led to increased imports of food and other items. The index of agricultural production receded to 139.2 in 1965-66.

Gross irrigated area increased from 2.26 crore hectares in 1950-51 to 2.56 crore hectares at the end of the First Plan, 2.80 crore hectares at the end of the Second Plan and 3.11 crore hectares at the end of the Third Plan. The total installed power capacity increased from 23 lakh kw in 1951 to 34.2 lakh kw at the end of the First Plan, 56.5 lakh kw at the end of the Second Plan and 101.71 lakh kw at the end of the Third Plan.

The net output in organised manufacturing industries nearly doubled during the first two plans. The share of the public sector industries went up from 1.5 per cent at the beginning of the First Plan to 8.4 per cent at the end of the Second Plan. Much of this increase was in key industries, such as, steel, coal mining and heavy chemicals. In the Third Plan, a growth rate of 8 to 10 per cent was maintained in the first four years of the Plan, but it declined to 5.3 per cent in the fifth year owing to the dislocation caused by the war with Pakistan and disruption in the flow of foreign aid. The overall annual growth rate for the entire plan period was 8.2 per cent against the target of 11 per cent. However, there was continuous increase and diversification of production capacity, specially in steel and aluminium, machine tools, industrial machinery, electrical and transport equipment, fertilizers, drugs and pharmaceuticals and petroleum products. All this contributed to the strengthening of the industrial structure.

School enrolment rose from 2.35 crores in 1950-51 to 3.14 crores at the end of the First Plan, 4.46 crores at the end of the Second Plan and 6.60 crores in 1965-66.

Against the projected overall rate of growth of 5.7 per cent per

TABLE 13.1

PUBLIC SECTOR OUTLAY DURING THE FIRST FOUR PLANS

(*Rs crores*)

Head	First Plan	Second Plan			Third Plan			Fourth Plan		
	Total	Centre	States	Total	Centre	States	Total	Centre	States	Total
1. Agriculture and allied sectors	290 (14.8)	53[1] (9.7)	496 (90.3)	549 (11.7)	117 (10.7)	972 (89.3)	1,089 (12.7)	1,235 (7.6)	1,508 (9.3)	2,743 (16.9)
2. Irrigation and flood control	434 (22.2)	55 (12.8)	375 (87.2)	430 (9.2)	10 (1.5)	665 (98.5)	665 (7.8)	17 (0.1)	1,188 (7.3)	1,205 (7.4)
3. Power	149 (7.6)	28 (6.2)	424 (93.8)	452 (9.7)	113 (9.0)	1,139 (91.0)	1,252 (14.6)	510 (3.2)	2,370 (14.6)	2,880 (17.8)
4. Village and small industries	42 (2.1)	106 (56.7)	81 (43.3)	187 (4.0)	1,764 (89.7)	203 (10.3)	241 (2.8)	132 (0.8)	122 (0.7)	254 (1.5)
5. Industry and minerals	55 (2·8)	898 (95.7)	40 (4.3)	938 (20.1)			1,726 (20.1)	2,772 (17.1)	211 (1.4)	2,983 (18.5)
6. Transport and communications	518 (26.4)	1,092 (86.6)	169 (13.4)	1,261 (27.0)	1,818 (86.1)	294 (13.9)	2,112 (24.6)	2,345 (14.5)	638 (3.9)	2,983 (18.4)
7. Others	472 (24.1)	357 (41.8)	478 (58.2)	855 (18.3)	590 (39.6)	902 (60.4)	1,492 (17.4)	541 (9.6)	1,612 (9.9)	3,153 (19.5)
of which										
(a) Education and scientific research	149 (7.6)			273 (5.8)			660 (7.7)	375 (2.3)	529 (3.3)	904 (5.6)
(b) Health	98 (5.0)			216 (4.6)			226 (2.6)	151 (0.9)	186 (1.1)	337 (2.0)
(c) Family planning				—			25 (0.3)	262 (1.6)	—	262 (1.6)
TOTAL	1,960 (100·0)	2,589 (55.4)	2,083 (44.6)	4,672 (100.0)	4,412 (51.4)	4,165 (48.6)	8,577 (100.0)	8,552 (52.9)	7,649 (47.1)	16,201 (100.0)

Note: Figures in brackets represent percentage to outlay in the concerned sector.

[1] Residual figure. To the extent that the states' share of total outlay is out of total of Rs 4,600 crores (later revised to Rs 4,672 crores) for which centre and state-wise break-up is not available, the centre's outlay may be overstated.

TABLE 13.2

Financing of Plan Outlay in the Public Sector

(*Rs crores*)

Item	First Plan		Second Plan		Third Plan		Fourth Plan	
	Original estimates	Actuals	Original estimates	Actuals	Original estimates	Actuals	Original estimates	Latest estimates
A. *Mainly through own resources*	**740** **(35.7)**	**725** **(38.4)**	**1,350** **(28.1)**	**1,230** **(26.3)**	**2,810** **(37.5)**	**2,908** **(33.9)**	**7,102** **(44.7)**	**5,475** **(33.9)**
1. Balance from current revenues at pre-plan rates of taxation	570	382	350	11	(—) 550	(—) 419	1,673	(—) 236
2. Additional taxation, including measures to increase the surplus of public enterprises	—	255	850	1,052	1,710	2,892	3,198	4,280
3. Retained profits of Reserve Bank	—	—	—	—	—	—	202	296
4. Surplus of public sector undertakings, exclusive of yield from measures adopted for raising additional resources for the plan	170	115	150	167	550	435	2,029	1,135
(a) Railways	170	115	150	167	100	62	265	(—) 165
(b) Others	—	—	—	—	450	373	1,764	1,300
B. *Mainly through domestic borrowings*	**808** **(39.1)**	**1,019** **(52.0)**	**2,650** **(55.2)**	**2,393** **(51.2)**	**2,490** **(33.2)**	**3,246** **(37.9)**	**6,186** **(38.9)**	**8,598** **(53.2)**
1. Loans from the public, including state enterprises' borrowings from market and LIC (net)	115	204	700	756	800	823	2,326	3,145
2. Small savings	225	243	590	422	600	565	769	1,162
3. Annuity deposits, compulsory deposits, prize bonds and gold bonds	—	—	—	—	—	117	(—) 104	(—) 98
4. State provident funds	45	92	250	175	265	336	660	874
5. Steel equalisation funds (net)	—	—		40	105	34	—	—
6. Miscellaneous capital receipts (net)	133	147		46	170	238	1,685	1,455
7. Deficit financing	290	333	1,200	954	550	1,133	850	2,060
C. *Total domestic resources* (A+B)	**1,548** **(74.8)**	**1,771** **(90.4)**	**4,000** **(83.3)**	**3,623** **(77.5)**	**5,300** **(70.7)**	**6,154** **(71.8)**	**13,288**	**14,073** **(87.1)**
D. *External assistance*	**521** **(25.2)**	**189** **(9.6)**	**800** **(16.7)**	**1,049** **(22.5)**	**2,200** **(29.3)**	**2,423** **(28.2)**	**2,614** **(16.4)**	**2,087** **(12.9)**
E. ***Total resources*** (C+D)	**2,069** **(100.0)**	**1,960** **(100.0)**	**4,800** **(100.0)**	**4,672** **(100.0)**	**7,500** **(100.0)**	**8,577** **(100.0)**	**15,902** **(100.0)**	**16,160** **(100.0)**

Note: Figures in brackets are percentages to total.

annum during the Fourth Plan, the rate of growth was 5.2 per cent in 1969-70. It fell to 4.2 per cent in 1970-71, 1.7 per cent in 1971-72 and 0.6 per cent in 1972-73. The performance of the key sectors like agriculture and industry during each year of the plan period showed varying trends.

The target of foodgrain production for the plan was 12.9 crore tonnes. According to the latest estimates, the likely achievement in 1973-74 would be about 11 crore tonnes. The main reason for the shortfall in production was climatic. However, the breakthrough in wheat production was the major achievement of the new agricultural strategy carried forward in the plan. In the case of rice, even though the position was satisfactory, a technological breakthrough has not yet been clearly established. The growth rates in the production of pulses and oilseeds were below the plan expectations.

The Fourth Five Year Plan was formulated when the economy was recovering from a period of recession and there was considerable unutilised capacity in the industrial sector. Better utilisation of existing capacities was, therefore, a major objective of the plan. In the industrial field, even though the plan envisaged an annual rate of growth of 8 to 10 per cent, the rate of growth achieved in successive years during the plan period was rather low. In the first four years of the plan, it was 7.3 per cent, 3.1 per cent, 3.3 per cent and 5.3 per cent, respectively, while in 1973-74 there was only a marginal increase. While there was insufficient capacity in a few industries, the utilisation of available capacity in some of the major industries like steel and fertilizers was hindered by operational problems and shortage of key raw materials and power.

In terms of overall growth rate, the bumper *kharif* crop and the promising outlook for *rabi* together with indications of better performance in other sectors of the economy suggest that the achievement would be 7 per cent in 1973-74. The total increase in net domestic product over the Fourth Plan period would be of the order of 20 per cent, giving an average compound rate of growth of 3.7 per cent per annum as against the target of 5.7 per cent.

FIFTH FIVE YEAR PLAN

Removal of poverty and attainment of self-reliance are the two major objectives of the Fifth Plan (1974-79). The plan aims at raising the consumption standards of the lowest 30 per cent of the population, from Rs 25 per month to a minimum desirable standard of Rs 40.6 at 1972-73 prices. A major thrust of policy would be to provide vastly expanded opportunities of employment to the weaker sections in general and to agricultural labourers and small and marginal farmers in particular. Development programmes have been prepared for backward areas, including hills and tribal areas, for the uplift of the backward classes through the mechanism of specially drawn-up sub-plans as an integral part of the state plans. A national programme to meet the minimum needs of the poorest sections of society has been formulated. The plan aims at accelerated rate of growth of agricultural and industrial output, and provides for non-inflationary financing of development. An overall rate of growth of 5.5 per cent per annum in the national product is envisaged.

A tentative outlay of Rs 53,411 crores is envisaged for the Fifth Five Year Plan. Of this, Rs 37,250 crores have been allocated to public sector and Rs 16,161 crores to private sector. Table 13.3 indicates the distribution of public sector outlay under various heads of development among the centre, states and union territories.

TABLE 13.3
PUBLIC SECTOR OUTLAY DURING THE FIFTH PLAN

(*Rs crores*)

	Head	Centre[1]	States	Union Territories	Total
1	Agriculture	1,946	2,717	67	4,730
2	Irrigation	140	2,515	26	2,681
3	Power	738	5,343	109	6,190
4	Mining and manufacturing	8,180	742	17	8,939
5	Construction	25	—	—	25
6	Transport and communications	5,727	1,297	91	7,115
7	Trade and storage	194	11	—	205
8	Housing and real estate	237	338	25	600
9	Banking and insurance	90	—	—	90
10	Public administration and defence	60	30	8	98
11	Other services:	1,953	3,580	257	5,790
	(i) Education	484	1,155	87	1,726
	(ii) Health	253	517	26	796
	(iii) Family planning	516	—	—	516
	(iv) Nutrition	70	330	—	400
	(v) Urban development	252	272	19	543
	(vi) Water supply	16	924	82	1,022
	(vii) Social welfare	200	26	3	229
	(viii) Welfare of backward classes	55	167	4	226
	(ix) Labour welfare	15	38	4	57
	(x) Miscellaneous	92	151	32	275
12	Science and technology[2]	419	—	—	419
13	Hill and tribal areas	—	500	—	500
	TOTAL	19,577	17,073	600[3]	37,250[4]

[1] Includes centrally-sponsored schemes.

[2] Includes provision for the Departments of Atomic Energy, Space, Science and Technology, Supply, Council of Scientific and Industrial Research and Anthropological Survey. In addition, a provision of Rs 614 crores for science and technology is included in respective sectors.

[3] Tentative.

[4] The sectoral outlay totals up to Rs 37,382 crores. A reduction of Rs 132 crores will be effected to keep the total at Rs 37,250 crores or alternatively additional resources to this extent will be found.

Within the constraints of the overall resources, sectoral distribution has been designed to optimise the use of these resources consistent with varied objectives in different sectors. The overall guiding principles were: (i) speedy completion of projects and programmes already under way; (ii) fullest utilisation of capacities and potentials already created so that the investment therein yields better return; (iii) achievement of the inescapable minimum targets of additional capacity in the core sectors on which the accelerated pace of growth in the coming years would largely depend; and (iv) attainment of certain minimum levels of developmet for the economically weaker sections, especially the last three deciles of population.

The sources for financing public sector outlay in the Fifth Five Year Plan are indicated in Table 13.4.

TABLE 13.4
FINANCING OF PLAN OUTLAY IN PUBLIC SECTOR

Item	At 1972-73 prices (Rs crores)
1. Central and state governments' resources on revenue account at 1973-74 rates of taxation	**7,348**
(a) Balance from current revenues	**5,612**
(b) Transfer from current revenues to funds	**1,736**
(i) Sinking funds	1,484
(ii) Other funds (net)	252
2. Gross surplus of public enterprises	**5,988**
(a) Centre	4,331
(b) States	1,657
3. Additional resource mobilisation	**6,850**
(a) Centre	4,300
(b) States	2,550
4. Market borrowings of government, public enterprises and local bodies	**7,232**
5. Small savings	**1,850**
6. State provident funds	**1,280**
(a) Centre	680
(b) States	600
7. Term loans from financial institutions (net)	**895**
(a) Negotiated loans from LIC and the Reserve Bank of India	755
(b) Other term loans	500
(c) *less* Repayments to financial institutions	(—) 360
8. Commercial credit from banks (net)	**1,185**
(a) Increase in outstanding credit from banks	1,500
(b) *less* Increase in outstanding deposits with banks	(—) 315
9. Debits, deposits and miscellaneous items	**1,008**
(a) Loan repayments by term financing institutions	128
(b) Other receipts (net)	880
10. Absorption of coins by public (net)	**81**
(a) Total absorption of coins by public	100
(b) *less* Addition to cash held by treasuries and public sector undertakings	(—) 19
11. Borrowing from Reserve Bank of India against treasury bills	**1,000**
12. Resources of public banking and financial institutions for investment in buildings	**90**
13. Receipts from the rest of the world (net)	**2,443**
(a) From fresh inflow of funds[1]	2,243
(b) From US rupee funds	200
TOTAL	**37,250**

[1] Includes suppliers' credit of Rs 400 crores.

14 AGRICULTURE

AGRICULTURE

Nearly 70 per cent of the people in India are dependent for their living on agriculture and allied sectors which account for about 47 per cent (at current prices) of the national income. The number of persons engaged in agriculture alone, according to the 1971 census, was 12.55 crores—7.81 crore cultivators and 4.74 crore agricultural labourers. Agriculture not only supplies raw materials for some of the major industries such as cotton and jute textiles and sugar, but also provides a large proportion of the country's exports.

Land Utilization

Land utilization statistics are available for 30.60 crore hectares or 93.3 per cent of the total area of 32.80 crore hectares.

Table 14.1 gives details of land utilization in India for 1969-70 and 1970-71.

TABLE 14.1
LAND UTILIZATION

(crore hectares)

		1969-70	1970-71[1]
Total geographical area		32.80	32.80
Total reporting area for land utilization		30.60	30.60
1. Forests		6.60	6.59
2. Not available for cultivation			
(i) Area put to non-agricultural uses		1.59	1.60
(ii) Barren and uncultivable lands		3.03	3.02
	TOTAL	4.62	4.62
3. Other uncultivated land excluding fallow lands			
(i) Permanent pastures and grazing lands		1.30	1.30
(ii) Land under tree crops and groves		0.44	0.43
(iii) Cultivable waste		1.58	1.52
	TOTAL	3.32	3.25
4. Fallow Lands			
(i) Current fallows		1.23	1.11
(ii) Others		0.96	0.91
	TOTAL	2.19	2.02
5. Net Area sown		13.87	14.12
Area sown more than once		2.51	2.62
Total cropped area		16.38	16.74

[1] Provisional.

Irrigated Area

Of the net area under cultivation, 22.2 per cent is irrigated. Between 1950-51 and 1970-71, the net irrigated area increased by 1.03 crore hectares as shown in Table 14.2.

TABLE 14.2
AREA UNDER IRRIGATION

(crore hectares)

Source of irrigation	1950-51	1970-71	Increase (+) or decrease (—)
Canals	0.83	1.25	+0.42
Tanks	0.36	0.45	+0.09
Wells	0.60	1.18	+0.58
Other sources	0.30	0.24	—0.06
TOTAL	2.09	3.12	+1.03

Principal Crops and Area

The two outstanding features of agricultural production are the wide variety of crops and the preponderance of food over non-food crops.

Table 14.3 shows the area under major crops for selected years since 1950-51.

TABLE 14.3
AREA UNDER PRINCIPAL CROPS

(*'000 hectares*)

Crops	1950-51	1970-71	1971-72	1972-73[1]
Rice	30,810	37,592	37,758	36,019
Jowar	15,571	17,374	16,777	14,811
Bajra	9,023	12,913	11,773	11,716
Maize	3,159	5,852	5,668	5,725
Ragi	2,203	2,472	2,425	2,286
Small millets	4,605	4,783	4,477	4,176
Wheat	9,746	18,241	19,139	19,881[2]
Barley	3,113	2,555	21,455	2,406
TOTAL CEREALS	78,230	1,01,782	1,00,472	97,020
Gram	7,570	7,839	7,912	6,940
Tur	2,181	2,655	2,346	2,330
Other pulses	9,340	12,040	11,893	11,139
TOTAL FOODGRAINS	97,321	1,24,316	1,22,623	1,17,429
Potatoes	240	482	492	528
Sugarcane (gur)	1,707	2,615	2,390	2,481
Black pepper	80	120	119	120[3]
Chillies	592	783	753	677
Ginger	17	22	25	23
Tobacco	357	447	458	434
Groundnut	4,494	7,326	7,510	6,878
Castorseed	555	439	453	403
Sesamum	2,204	2,433	2,392	2,232
Rapeseed and mustard	2,071	3,323	3,614	3,390
Linseed	1,403	1,897	2,064	1,740
Cotton	5,882	7,605	7,800	7,704
Jute	571	749	815	700[3]
Mesta	N.A.	330	296	288
Tea	314	354	357	358[3]
Coffee	91	136	139	N.A.
Rubber	58	203	208	214
Coconut	622	1,046	1,088	1,098

[1] Final estimates.
[2] Provisional.
[3] Revised estimates.
N.A.—Not available.

Seasons

There are three main crop seasons, namely, *kharif*, *rabi* and summer. The major *kharif* crops are rice, jowar, bajra, maize, cotton, sugarcane, sesamum and groundnut. The major *rabi* crops are wheat, jowar, barley, gram, linseed, rapeseed and mustard. Rice, maize and groundnut are grown in summer season also.

Plan Expenditure

The expenditure on agriculture and allied sectors during the Third Plan, the Annual Plans and the Fourth Plan is shown in Table 14.4. The proposed outlay in the Fifth Plan is Rs 4,941.76 crores.

Production

Agricultural production which recorded a substantial rise in 1970-71 registered some fall in 1971-72 owing to unfavourable weather conditions in some parts of the country. In 1972-73, the production of most of the agricultural commodities received a severe set-back on account of widespread drought in large parts of the country, shortage of fertilizers, shortfall in power supply to tube-wells and irregular water supply from canals. The production of foodgrains, which had risen to an all time record of 10.8 crore tonnes in 1970-71, declined to 10.5 crore tonnes in 1971-72 and to 9.5 crore tonnes in

TABLE 14.4 EXPENDITURE ON AGRICULTURE

(*Rs crores*)

Sector	Third Plan Expenditure	Annual Plans Expenditure	Fourth Plan Expenditure[1]
I. Agricultural programmes			
Agricultural research and education	202.5	205.5	128.2
Agricultural production			351.6
Programmes for special classes and areas[2]	—	—	114.1
Minor irrigation	270.1	313.5	532.3
Soil conservation	77.0	87.5	160.4
Area development	2.3	12.7	47.6
Animal husbandry	43.4	60.8	80.7
Dairying and milk supply	33.6		85.7
Fisheries	22.5	31.6	59.4
Forests	46.0	43.2	93.5
Warehousing, marketing and storage	27.4	18.0	105.9
Central support to financial institutions	—	—	245.0
Food processing and subsidiary foods	—	—	16.8
Buffer stocks	—	130.0	240.0
TOTAL	724.8	902.8	2,261.2
II. Allied programmes			
Co-operation	75.6	105.8	361.5
C.D. and Panchayats	288.5	97.6	112.0
TOTAL	364.1	2 03.4	473.5
GRAND TOTAL	1,088.9	1,106.2	2,734.7

[1] Anticipated.

[2] For small farmers, agricultural labourers and drought prone areas programme.

TABLE 14.5 PRODUCTION OF PRINCIPAL CROPS

('*000 tonnes*)

Crops	1950-51[1]	1971-72	1972-73[2]
Rice (cleaned)	22,058	43,068	38,633
Jowar	6,250	7,722	6,442
Bajra	2,680	5,319	3,795
Maize	2,357	5,101	6,206
Ragi	1,353	2,208	1,913
Small millets	1,776	1,669	1,474
Wheat	6,822	26,410	24,923[3]
Barley	2,518	2,577	2,327
TOTAL CEREALS	45,814	94,074	85,713
Gram	3,823	5,081	4,469
Tur	1,813	1,683	1,748
Other Pulses	3,561	4,330	3,271
TOTAL FOODGRAINS	55,011	1,05,168	95,201
Potatoes	1,832	4,826	4,473
Sugarcane (cane)	70,490	1,13,570	1,23,968
Black pepper	20	26	26
Chillies (dry)	358	494	408
Ginger (dry)	14	35	33
Tobacco	257	419	364
Groundnut (nuts in shell)	3,319	6,181	3,924
Castorseed	107	154	136
Sesamum	422	449	356
Rapeseed and mustard	768	1,433	1,853
Linseed	364	529	439
Cotton (lint) ('000 bales)[4]	2,870	6,564	5,489
Jute (dry fibre) ('000 bales)[4]	3,497	5,684	4,978[5]
Mesta (dry fibre) ('000 bales)[4]	659	1,150	1,162
Tea	275	433	450[3]
Coffee	25	69	90[3]
Rubber	14	101	112
Coconut (crore nuts)	358	612	595

[1] Adjusted. [2] Final estimates. [3] Provisional. [4] 180 kg each.

[5] Revised estimates.

1972-73. Among the items of foodgrains, the decline in production during 1972-73 was sharp in the case of rice, wheat, jowar and bajra. In the case of commercial crops, the output of cotton in 1972-73 was lower by 16.4 per cent and that of jute by 14.3 per cent as compared to the previous year. The fall in production of oilseeds was the highest, nearly 23 per cent. There was, however, an increase of 9 per cent in the production of sugarcane.

Table 14.5 shows the production of principal crops in 1950-51, 1971-72 and 1972-73.

FOOD SITUATION

The food situation in the country remained difficult during 1973 owing to a setback in foodgrains production for the second year in succession. The production of foodgrains declined to 9.5 crore tonnes in 1972-73 from 10.5 crore tonnes in 1971-72 and 10.8 crore tonnes in 1970-71. There was a perceptible shrinkage in market supplies and prices ruled high throughout the year. The all-India wholesale price index for cereals rose by 16.3 per cent during the year. Scarcity relief operations undertaken on a massive scale in 1972 in the drought-affected areas were expanded during the first half of 1973. To check the rise in prices and to meet the requirements of vulnerable sections of the population at reasonable prices, public distribution of foodgrains was considerably stepped up resulting in the depletion of stocks. To meet the increasing requirements of the public distribution system and to replenish the stocks, vigorous efforts were made for maximising procurement. In addition, arrangements were made to purchase about 42 lakh tonnes of foodgrains in the world market to supplement domestic supplies. The USSR also gave a wheat loan of 20 lakh tonnes to help the country in meeting the difficult food situation.

Procurement

The shrinkage in market availability and the consequent rise in open market prices of foodgrains increased the pressure of consumer demand on the public distribution system. Procurement operations were intensified both in the surplus and deficit states for meeting the public distribution requirements. Despite a fall of one crore tonnes in production, the total procurement of foodgrains out of 1972-73 crop was 76 lakh tonnes as compared to 84 lakh tonnes procured in the previous year. During 1972-73 marketing season, procurement of rice (including paddy in terms of rice) was about 27.06 lakh tonnes as compared to 31.16 lakh tonnes in the previous season. Of the total quantity procured during 1972-73, about 14.25 lakh tonnes were contributed to the central pool. Procurement of wheat during 1973-74 marketing season (out of 1972-73 crop) was 45.31 lakh tonnes as compared to 50.06 lakh tonnes during 1972-73. Total quantities delivered to the central pool were 43.05 lakh tonnes.

For the 1973-74 *kharif* season, procurement targets were fixed at 50 lakh tonnes of rice and 16.5 lakh tonnes of *kharif* coarse grains. Against these, about 37.15 lakh tonnes of rice and about 4 lakh tonnes of coarse grains had been procured by 15 June 1974. Besides this, government also procured more than 12.60 lakh tonnes of wheat between 1 April and 20 June 1974. The system of procurement for different cereals in 1973 varied from state to state, some following monopoly procurement and others following the levy system. The levy was imposed on either producers or dealers depending on local conditions.

Wholesale Trade in Wheat

The central government, which took over the wholesale trade in wheat during the 1973-74 marketing season, modified the policy for the 1974-75 marketing season in view of the continuing psychology of shortage. Under the new scheme, besides the public agencies, wholesalers, private as well as co-operative societies, were allowed to operate under a system of licensing and control. A 50 per cent levy was imposed on the daily purchases made by wholesalers in the surplus states of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and Rajasthan. The traders were allowed to sell non-levy wheat within the state or outside the state on the basis of a permit. Subsequently, after a review of procurement policy, Punjab fixed a stock limit of 100 quintals for all private wholesalers. A stock limit on cultivators was also enforced, whereby they could not keep more than 10 quintals per acre subject to a maximum of 100 quintals. Further, in view of erratic market arrivals, the U.P. government was permitted to make direct purchases from cultivators under a scheme linking procurement with the supply of essential commodities like fertilizers, cement, diesel and cloth at controlled rates. The Madhya Pradesh government was allowed to make purchases from cultivators at enhanced rates through the State Commodities Trading Corporation. The Rajasthan government introduced a graded levy on producers. In other wheat producing states, state governments undertook procurement by a graded levy on producers. The policy aimed at giving the growers a good market price, improving availability of wheat, particularly in deficit states, discouraging hoarding at all levels and reducing wide variations in the price of foodgrains in various parts of the country.

Public Distribution

To meet the situation arising from the shrinkage in the availability of foodgrains in the open market following a substantial fall in production in 1972-73 and to protect the vulnerable sections of the population against rising prices, releases of foodgrains through the public distribution system were stepped up during 1973. The total quantity of foodgrains distributed was nearly 1.14 crore tonnes as compared to 1.05 crore tonnes in 1972.

Import of Foodgrains

To supplement the availability of foodgrains, the central government imported 36.14 lakh tonnes of foodgrains in 1973 as against 4.45 lakh tonnes in 1972.

Table 14.6 shows the import of cereals into India since 1966.

TABLE 14.6
IMPORT OF CEREALS

('000 tonnes)

Cereals	1966	1967	1968	1969	1970	1971	1972	1973
Rice	787	453	446	487	206	240	131	—
Wheat and wheat flour	7,832	6,400	4,766	3,090	3,425	1,814	314	2,414
Other cereals	1,739	1,819	482	295	—	—	—	1,200
TOTAL	10,358	8,672	5,694	3,872	3,631	2,054	445	3,614

Rationing

In 1973, statutory rationing of foodgrains was in force in Calcutta and Asansol-Durgapur group of industrial towns in West Bengal and in the city of Bombay in Maharashtra. The rationing in Bombay was confined only to rice and jowar, and in Calcutta and Asansol-Durgapur group of towns to rice, wheat and wheat products (excluding suji). The population covered under statutory rationing was 1.71 crores on

31 December 1973 as against 1.6 crores a year ago. Informal rationing of foodgrains was in force in other areas. The number of fair price shops and ration shops functioning in the country was more than 2.07 lakhs as against 1.65 lakhs on 31 December 1972.

Price Policy

Fixation of minimum support prices and procurement prices has been an essential feature of the central government's policy for the past several years. Minimum support prices are in the nature of a long-term guarantee to the producers so that in the event of a glut in the market, or for any other reason, prices do not fall below the minimum economic levels. These prices are generally announced before the start of the sowing season. In view of the increase in cultivation costs and to provide reasonable incentives to the producers, minimum support prices for 1973-74 *kharif* and *rabi* crops were fixed at levels higher than the previous year's procurement prices.

Procurement prices for major foodgrains are also fixed by the government. These prices, which are much higher than the minimum support prices, are meant essentially for the purchase of quantities needed by the government for maintaining the public distribution system and for building up buffer stocks. In order to provide greater incentive to producers, the government has been purchasing since 1968 all quantities of foodgrains at procurement prices. As a result, procurement prices have assumed the role of support prices.

The Agricultural Prices Commission, which was set up in 1965, advises the central government on price policy for agricultural commodities, particularly paddy and rice, wheat, jowar, bajra, maize, sugarcane, oilseeds, cotton and jute, for evolving a balanced and integrated price structure in the perspective of the overall needs of the economy and the interests of the producers and consumers.

Buffer Stocks

To impart stability to the country's food economy, the central government built up a buffer stock of 70 lakh tonnes of foodgrains during the Fourth Plan period. But the increased distribution of foodgrains in 1972 and 1973 coupled with the fall in procurement in the two years led to considerable depletion of stocks. Total physical stocks both with the central and state governments at the end of 1973 stood at 23 lakh tonnes as against 34 lakh tonnes in 1972.

Food Corporation of India

The Food Corporation of India, New Delhi, which was set up in 1965, operates as the sole agency of the central government for procurement, import, distribution, storage, movement and sale of foodgrains. It also performs other diversified activities such as handling of fertilizers at ports, rice milling, production of nutritious processed foods and wholesale distribution of levy sugar.

The Corporation procured about 69.5 lakh tonnes of foodgrains out of the 1972-73 crop. At the end of 1973 it had a storage capacity of 78.20 lakh tonnes mostly owned and partly hired.

Central Warehousing Corporation

The Central Warehousing Corporation, New Delhi, acquires and builds godowns and warehouses, including those for the Food Corporation of India for storage of agricultural produce, inputs, implements, and notified commodities offered by individuals, co-operative societies and other organisations. By the end of 1973, the storage capacity of the Corporation was 15.79 lakh tonnes, of which 11.32 lakh tonnes capacity was owned and the rest hired.

DEVELOPMENT PROGRAMMES

Under the new strategy for agricultural development adopted since 1966-67, development programmes have been refashioned to meet the needs of the farmer. Arrangements for the production and supply of improved seeds, particularly of the high yielding varieties, are being steadily strengthened. Efforts are being made to bring science and technology closer to the farmer. The supply of inputs and institutional credit for agricultural requirements are being constantly stepped up. Special programmes for the benefit of small farmers, marginal farmers and agricultural labourers and integrated dryland agricultural projects are being implemented. The targets and achievements of principal agricultural development programmes are briefly given in the following paragraphs.

IADP

The Intensive Agricultural District Programme (IADP), popularly known as the 'package programme' was started on a pilot basis in 1961 in seven selected districts. The programme aims at combining technical know-how, credit and production supplies for stepping up agricultural production. As a result of the programme, there has been an improvement in the productivity of land and increase in production.

Multiple Cropping

The multiple cropping programme, which aims at increasing agricultural production and helping small farmers to increase their income, was initiated on a countrywide basis during 1967-68. A centrally-sponsored scheme of pilot projects for multiple cropping was started in 1971-72. Fifty-five projects were sanctioned for that year and one each added in the subsequent two years. Adaptive research trials and scientific demonstrations along with 'whole village approach' are the main ingredients of these projects. During 1971-72 and 1972-73, a total of 1,381 adaptive research trials and 3,621 scientific demonstrations were conducted. Under the 'whole village approach', 312 villages were covered up to April 1973. A total number of 1,181 training programmes and farmers' training camps were organised in which 35,434 personnel were trained. During 1973-74, 315 adaptive research trials and 1,275 scientific demonstrations were carried out. The Fourth Plan target of bringing 90 lakh hectares of additional area under multiple cropping was expected to be fully achieved.

High Yielding Varieties Programme

The cultivation of high yielding varieties has resulted in substantial increase in wheat production since 1966-67. Rice production also has increased though the rate of growth is not as high as for wheat. A major development in rice cultivation was the launching of the minikit programme from 1971-72. Under this programme, large-scale testing of newly released and pre-release superior varieties of paddy is being carried out on the farmers' fields and in district farms. The implementation of this scheme has helped in the acceptance of some of the new rice varieties like IR-20, Vijaya, Pankaj, Ratna and Sona.

The target of bringing 2.5 crore hectares of cereals under the high yielding varieties by 1973-74 was expected to be fully achieved with, probably, some crop-wise variations.

Minor Irrigation

Organisational arrangements in the states for better planning, investigation and development of ground water resources have not only been strengthened but also improved. A sum of Rs 1 crore was made available to the states during 1973-74 to strengthen ground water organisations. As against the target of 72 lakh hectares of additional area that was to benefit during the Fourth Plan period, the achievement was nearly 82 lakh hectares. This included irrigation facilities created under the Emergency Agricultural Production Programme. Three IDA credit projects, having minor irrigation as a major component, were approved for Bihar, Madhya Pradesh and Uttar Pradesh by the World Bank for financing during 1973-74.

The Central Ground Water Board in the Ministry of Agriculture carried out ground water surveys by way of hydro-geological investigations, ground water exploration and first approximation resources evaluation studies, short-term investigations and other special studies. This was in addition to the four projects already under implementation for the quantitative assessment of ground water resources in arid and semi-arid regions of Gujarat and Rajasthan, hard rock areas of Andhra Pradesh and Karnataka, the alluvial parts of Narmada river basin in Gujarat and Madhya Pradesh and in upper Yamuna river basin in Delhi, Haryana, Himachal Pradesh and Uttar Pradesh.

Soil and Water Conservation

Up to the end of the Fourth Plan, 163.3 lakh hectares were estimated to have been treated with soil conservation practices at a cost of about Rs 347 crores. During 1974-75, soil conservation programme is being taken up on a watershed basis with simultaneous treatment of agricultural and development of non-agricultural land.

Fertilizers

The consumption of fertilizers during 1973-74 was more or less at the same level as in 1972-73. The estimated consumption of fertilizers in terms of nutrients (nitrogen, phosphates and potash) was 27.83 lakh tonnes as compared to 27.69 lakh tonnes in 1972-73. The consumption of nitrogenous fertilizers was 18.35 lakh tonnes, of phosphatic fertilizers 6.34 lakh tonnes and of potassic fertilizers 3.14 lakh tonnes as against 18.40 lakh tonnes, 5.81 lakh tonnes and 3.48 lakh tonnes respectively during 1972-73. To encourage the balanced use of fertilizers and to correct the deficiency of micro-nutrients in soils, a fertilizer promotion programme, involving an outlay of Rs 2.19 crores, was taken up during the Fourth Plan. It is in operation in 64 districts. To support this programme, 65 existing soil testing laboratories have been strengthened.

Manures

For the development and utilization of local manurial resources, schemes for urban compost, sewage and sullage utilization, rural compost and green manuring are in operation under the state sector. Urban compost production during 1973-74 was estimated at 48 lakh tonnes, while that of rural compost at 17 crore tonnes. Estimated area under sewage and sullage utilization and coverage under green manuring during 1973-74 were placed at 24,000 hectares and 6 lakh hectares respectively.

Quality Seeds

For the supply of quality seeds, two public sector undertakings, namely, the National Seeds Corporation (NSC) and the State Farms Corporation (SFC) have been set up. The National Seeds Corporation, New Delhi, which was set up in 1963, provides seed certification services to the entire country, except six states which have set up their own organisations. It has also taken up production of sugarbeet seed and plants of roses. The NSC plans to build up a buffer stock of about 1,600 tonnes of foundation seeds and 10,000 tonnes of certified seeds at a cost of Rs 3 crores during the Fifth Plan period.

The State Farms Corporation of India with headquarters at New Delhi was set up in 1969 to supplement the production and supply of quality seeds by the NSC. The SFC has 13 farms at Suratgarh, Jetsar, Hissar, Jharsuguda, Raichur, Cannanore, Ladhowal, Chengam, Kokilbari, Lokichera, Lushaicherra, Bahraich and Khammam. It has also started an *usar* land reclamation farm at Rae Bareli to demonstrate the methods of reclamation of saline land on scientific lines. The Corporation also undertakes land development and land levelling on the farms of private parties on a purely commercial basis.

The Seeds Act, 1966 is being implemented in the entire country. The Act ensures sale of seed with assured germination and genetic purity to the cultivators. Several new varieties of seeds of various crops have been brought under the provisions of the Act.

Plant Protection

Under the plant protection programme, which includes seed treatment, intensive ground and aerial spraying, weed control and rodent control, the total area that has benefited is estimated to have risen from 1.66 crore hectares in 1965-66 to 6.05 crore hectares in 1973-74. In the Fifth Plan, the programme will be expanded to extend the coverage of area and organisation of intensive training in plant protection.

Agro-Industries Corporations

Agro-Industries Corporations have been set up in several states. These are state sector undertakings with share capital contribution almost equally by central and state governments. The Corporations are mainly engaged in the distribution of agricultural machinery, setting up of machinery hiring centres and workshops. They have also entered other fields like manufacture of agricultural implements, processing of fruits and vegetable products, land levelling operations, establishment of cold storages, cattle and poultry feed plants and fisheries projects. Some of these corporations are also engaged in the distribution of other inputs like fertilizers, pesticides and seeds at reasonable prices to the farmers in their states. The number of machinery hiring centres has increased from 113 in 1972-73 to 184 in 1973-74.

Agro-Service Centres

Thirteen training cells have been set up one each in Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. In addition, two regional co-ordinating centres have been set up at the Tractor Training Centres at Budni and Hissar. These centres impart both practical and theoretical training in agricultural machinery to entrepreneurs. By the end of March 1974, 1,174 agro-service centres had been set up and 2,009 entrepreneurs trained.

Agricultural Refinance Corporation

The Agricultural Refinance Corporation (ARC) was set up in 1963 for granting medium and long-term credit for the development of agriculture, animal husbandry, dairy farming, pisciculture and poultry farming. It is a refinancing agency providing credit to projects financed by co-operative credit institutions and commercial banks.

Assistance from ARC is available for financing (i) reclamation and preparation of land; (ii) development of special crops such as arecanut, coconut, cashewnut, cardamom, coffee, tea and rubber; (iii) development of mechanised farming, use of electricity through tube-wells and pumpsets; and (iv) development of animal husbandry, dairy farming, pisciculture (including co-operative fisheries) and poultry farming.

Up to 31 March 1974, ARC had sanctioned 1,242 development schemes costing about Rs 716.84 crores. The schemes regarding development of minor irrigation accounted for Rs 522.05 crores, land reclamation Rs 86.70 crores and other schemes Rs 108.09 crores.

SPECIAL PROGRAMMES FOR WEAKER SECTIONS

For bringing social justice to small farmers, marginal farmers and agricultural labourers, and cultivators in dry areas through the spread of benefits of new technology, special programmes such as Small Farmers Development Agency (SFDA), Marginal Farmers and Agricultural Labourers Development Agency (MFAL) and Integrated Dryland Agricultural Development are being implemented.

SFDA and MFAL

Forty-six SFDA pilot projects are being implemented throughout the country to assist potentially viable small farmers with credit and other services to improve their economic condition. Each project aims at covering about 50,000 small farmers with holdings generally ranging from 2.5 to 5 acres.

Under MFAL, 41 projects have been set up. Generally, each project aims at benefiting about 15,000 marginal farmers (with a land holding of less than 2.5 acres) and about 5,000 agricultural labourers having a homestead and deriving more than 50 per cent of their income from agricultural wages. The scheme is oriented to develop animal husbandry, poultry and fisheries alongside agriculture and to provide adequate opportunities for off-season employment to marginal farmers and agricultural labourers. Areas covered by MFAL get Rs 15 to Rs 20 lakhs for rural works programme to provide supplementary employment opportunities to the participants.

The SFDA and MFAL projects are being run by agencies which are societies registered under the Societies Registration Act.

By the end of February 1974, 87 SFDA and MFAL agencies had identified 18.35 lakh small farmers, 17.62 lakh marginal farmers and 2.88 lakh agricultural labourers; of these, 20.12 lakhs were brought into the co-operative fold. Of the identified small farmers, 11.86 lakhs have benefited so far under the programmes of improved agricultural practices and 6.95 lakhs have benefited under other programmes. During the Fourth Plan period, a sum of Rs 46.83 crores was released to these agencies; of this, Rs 36.96 crores had been utilised by them up to 28 February 1974.

Dryland Development

To promote integrated agricultural development in the dry areas, which are faced with the twin problems of low production and high instability, the centrally-sponsored scheme of Integrated Dryland Agricultural Development is being implemented since 1970-71. Under the scheme, 24 projects were taken up in 12 states in co-ordination with research centres maintained by the Indian Council of Agricultural Research. The programmes under these projects include cultivation of drought-resistant and short duration photo-insensitive varieties of crops based on the latest dry farming technology. Incentives in the shape of subsidies and grants are given to the participating farmers to execute these programmes. The scheme is being continued in the Fifth Plan.

Farmers' Service Societies

Farmers' Service Societies to provide integrated services on an experimental basis are being organised in certain selected areas. The main objective of the societies is to help farmers, particularly small and marginal farmers, rural artisans and agricultural labourers by providing them, on an integrated basis, credit and services for increasing employment, production and income. The societies are financed by commercial banks or by co-operative banks, and their membership is open to all cultivators within their jurisdiction. Up to 31 March 1974, 42 such societies had been organised.

AGRICULTURAL MARKETING

The Directorate of Marketing and Inspection advises the central and state governments on agricultural marketing techniques. Its other activities include: (i) promotion of grading and standardisation of agricultural and allied commodities; (ii) statutory regulation of markets and market practices; (iii) training of personnel; (iv) market extension; (v) market research and survey; and (vi) administration of Cold Storage Order, 1964 and Meat Food Products Order, 1973.

Grading and Standardisation

The important commodities graded under 'Agmark' for internal consumption include cotton, vegetable oil, ghee, cream, butter, rice, wheat atta, gur (jaggery), eggs, arecanut, potatoes, fruits, bura, pulses, honey and whole and ground spices.

For securing adequate return to farmers, 541 grading units at production level were functioning by the end of March 1973. A special scheme for grading of seed cotton (kapas) at producer's level was in operation in 22 centres spread over several states. Compulsory grading and pre-shipment inspection prior to export was in force in respect of 40 commodities.

To ensure the purity and quality of products graded under 'Agmark', 17 laboratories have been set up at Alleppey, Bangalore, Bombay, Calcutta, Cochin, Guntur, Jamnagar, Kanpur, Kozhikode, Madras, Mangalore, Nagpur, Patna, Rajkot, Shibabad (Delhi), Tuticorin and Virudhunagar. The laboratory at Nagpur is the apex laboratory and acts as an appellate institution.

Regulation of Markets

Regulation of markets is done by the state governments. The Central Directorate of Marketing and Inspection, however, advises state governments in framing market legislation and its enforcement. The number of regulated markets in the country was 2,824 at the end of March 1973.

The Directorate is also implementing a scheme for providing financial assistance for the development of infrastructure facilities in the regulated markets. Assistance amounting to Rs 13 lakhs was provided during 1973-74 to selected markets in Bihar, Madhya Pradesh, Orissa, Rajasthan, West Bengal and Uttar Pradesh.

Training of Personnel

Personnel from different states are provided training in various fields of agricultural marketing by the Directorate of Marketing and Inspection. So far, 3,641 persons have been trained.

Market Extension

Extension work among the producers and consumers is carried out by the Directorate through various media like documentaries, cinema slides, exhibitions and printed literature with the object of developing orderly marketing in the country.

Market Research and Survey

The Directorate carries out country-wide marketing surveys for important agricultural, horticultural and livestock commodities to identify shortcomings of regulated markets. At present, a survey of marketable surplus and post-harvest losses of important foodgrains in the country is under way.

Cold Storage Order and Meat Food Products Order

The Cold Storage Order, 1964 is enforced by the Directorate for developing scientific cold storage and minimise loss in storage. To ensure hygienic production of meat food products, the Meat Food Products Order, 1973 is being implemented.

RESEARCH AND EDUCATION

DARE

A new Department of Agricultural Research and Education (DARE) was created in the central Ministry of Agriculture in 1973 to provide administrative servicing and support to the Indian Council of Agricultural Research. Among its other major functions are co-ordinating the work of central and state agencies in the fields of agricultural research and education, including animal sciences and fisheries, and developing new technology in agriculture, animal husbandry and fisheries, including such functions as plant and animal introduction and exploration as well as soil and land-use survey and planning.

ICAR

The Indian Council of Agricultural Research (ICAR) spearheads farm research in the country. The ICAR, which was established in 1929, is the apex body for formulating plans and co-ordinating agricultural and animal husbandry education and research and their application. The ICAR is functioning through a network of 22 research institutes, 2 technological research laboratories, the Directorate of All-India Soil and Land Use Survey and a few public and quasi-public institutions in the country. The Council also provides assistance for the establishment and development of at least one agricultural university in each state. It supports schemes for research in agriculture and allied sectors through a national grid of all-India co-ordinated research projects and a number of *ad hoc* research schemes. During 1973-74, 71 such projects were in operation. For details, see chapter 'Scientific Research'.

Agricultural Education

Higher agricultural education is imparted through specialised universities and other institutions. A system of granting scholarships and fellowships is also in vogue. To enable illiterate and semiliterate farmers to learn new agricultural technology, the Indian Council of Agricultural Research has prepared a scheme for setting up Krishi Vigyan Kendras (Farm Science Centres). One such Kendra was started at Pondicherry during 1973-74 which is affiliated to the Tamil Nadu Agricultural University. Several such Kendras will be set up during the Fifth Plan period.

The total enrolment of students for agricultural and animal sciences has gone up by about 16 times and that of agricultural universities 19 times since 1960. As on 1 May 1974, there were in all 107 institutions teaching agricultural and animal sciences. Of these, 19 are agricultural universities.

AGRICULTURAL LABOUR

Land for Landless Labourers

All state governments give priority to landless labourers, especially those belonging to the scheduled castes and scheduled tribes in the allotment of government fallow and waste lands. An area of about 60 lakh hectares of waste and fallow lands has been distributed so far. In addition, 5.56 lakh hectares have been distributed out of the land rendered surplus as a result of the implementation of land ceiling laws. This includes 2,837 hectares distributed under the revised ceiling laws in Kerala, Tamil Nadu and West Bengal.

Minimum Wage Fixation

Minimum wages for agricultural workers have been fixed under the Minimum Wages Act, 1948 in all states except Jammu and Kashmir. In Maharashtra and Tamil Nadu, however, minimum wages have so far been fixed only in some specified areas. The central government have also fixed minimum wages for workers in certain agricultural institutions, military farms and archaeological gardens.

Rural Labour Enquiry

The Rural Labour Enquiry was conducted between 1963-65 through the National Sample Survey. Data were collected on consumption expenditure, income, employment, unemployment, earnings and indebtedness of rural labour households, including agricultural labour households. The field work for the second Rural Labour Enquiry was scheduled to begin in 1974.

National Commission on Agriculture

The National Commission on Agriculture was set up in 1970 to examine the progress of agriculture in India and to make recommendations for its improvement and modernisation. So far it has submitted 21 interim reports on different subjects, including fertilizer distribution, seed multiplication, some aspects of agricultural research, extension and training, credit services for small and marginal farmers and agricultural labourers, reorientation of programmes for Small and Marginal Farmers and Agricultural Labourers Development Agencies, modernising irrigation system and integrated development of command areas, desert development and certain important aspects of selected export-oriented agricultural commodities.

LAND REFORM

The Directive Principle embodied in article 39 of the Constitution lays down that the ownership and control of the material resources of the community are to be so distributed as best to subserve the common good and prevent concentration of wealth and means of production in a few hands to the detriment of the community. The agrarian structure[1] which independent India inherited was semi-feudal in character with intermediary tenures superimposed on the farmers over substantial areas and with heavy concentration of ownership and cultivation of land. For ameliorating the conditions of small farmers and agricultural labourers, who constitute the bulk of the rural population, agrarian transformation has figured prominently in the Five Year Plan objectives and the land policy and programmes of the central and state governments.

Plan Objectives

The First Plan recognised that the pattern of land ownership and cultivation was a fundamental issue in national development and set out a broad outline of the policy to be followed by state governments. The policy was elaborated in the Second Plan and the objectives aimed at were: (i) to remove such impediments in the way of agricultural production as arose from the character of the agrarian structure and to create conditions for evolving as speedily as possible an agrarian economy with high levels of efficiency and productivity; and (ii) to establish an egalitarian society and eliminate social inequalities. The measures recommended related to: (a) abolition of intermediary tenures; (b) tenancy reforms including regulation of rents, security of tenure and enabling the tenants to become owners; (c) ceiling on land holdings; (d) consolidation of holdings; and (e) agrarian reorganisation.

The Third Plan envisaged implementation of the policy evolved during the Second Plan and embodied in legislation on the various aspects of land reform undertaken by states in pursuance of the accepted policies.

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[1] For a brief account of the genesis and growth of the agrarian problem, see chapter XXI 'India 1958'.

In the Fourth Plan, suggestions were made for a reorientation of land policy, having regard to the technological developments in agriculture and social requirements of the time and for review of the provisions in the existing legislation and measures for their expeditious implementation.

Under the Constitution, the main responsibility for enactment of land legislation and its implementation is that of the state governments. The land policy laid down in the Five Year Plans is in the nature of a broad common approach which each state follows keeping in view local conditions and needs.

Progress has been made in a number of states in enacting the requisite legislation and in its implementation. There has been an appreciable advance towards the goal of 'land to the tiller' as a result of the measures taken by state governments. However, there have been gaps in legislation and defects in implementation. To review the progress of land reform measures, to identify weaknesses and gaps in the land laws and their implementation and to review the land policy in the context of technological developments in agriculture and current social requirements, a Central Land Reforms Committee was set up in 1970 with the union Minister of Agriculture as the chairman. There were also special conferences of Chief Ministers of all the states and union territories in November 1969, September 1970, April 1972 and July 1972. These conferences stressed the urgency of putting into effect measures for complete security of tenure for tenants and share-croppers. They also urged redistribution of land for ensuring that the benefits of the new strategy in agriculture, extension of irrigation facilities and supply of improved seeds, fertilizers, insecticides and cheaper credit were made available to larger sections of agriculturists to avoid agrarian tension.

Abolition of Intermediaries

The abolition of intermediary tenures like zamindaris, talukdaris, jagirs and inams, which prevailed in about 40 per cent of the area of the country before Independence, has almost been completed. About two crore farmers have become owners of land. A considerable area of cultivable wasteland and private forests belonging to intermediaries has been vested in the State. About 57.7 lakh hectares of land have been distributed to the landless agriculturists. The main problems now facing the state governments are: (i) the abolition of some remnants of intermediary tenures such as religious and charitable inams which still exist in some states; (ii) bringing about uniformity in the rights of tenants who have come in direct contact with the State and rationalisation of assessment payable by them; and (iii) building up of effective land revenue and land reform agencies in the former zamindari areas.

Tenancy Reforms

Even after the abolition of intermediary tenures, tenancy continued on a considerable scale in ryotwari areas and sub-tenancies in former zamindari areas. Measures have been taken in various states for conferment of security of tenure, fixation of fair rent and eventually for bringing the tenants into direct contact with the State.[1] The progress made in the implementation of tenancy reforms was reviewed by conferences of Chief Ministers of states and union territories held in November 1969 and September 1970 which recommended that the right of resumption by the landowner from his tenants should be further restricted and in respect of non-resumable areas measures should be adopted for bringing the tenants into direct contact with the State.

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[1] For details, see chapter XVI 'India 1971-72'.

Ceiling on Holdings

Legislation imposing limits on the land area which a person or family may hold or in future acquire, has been enacted in most of the states. These provisions have also, by and large, been brought into force and are at different stages of implementation. The provisions under these Acts relating to the level of ceiling, the unit of application of ceiling (whether the land is to be held by each individual member of the family or as aggregate area by family as a whole), transfers and exemptions vary from state to state. In the country as a whole, about 10.75 lakh hectares of agricultural land have so far been declared surplus out of which 5 lakh hectares have been distributed.

The programme and the progress of ceiling on holdings were reviewed at the Chief Ministers' conference in November 1969. The main recommendations were: (i) provisions relating to the level of ceilings, transfers and exemptions should be revised in the light of technological developments in agriculture and social requirements; and (ii) expanded programme of employment generation in the rural areas should be supplemented by redistributing the means of production in favour of the rural poor, in part by providing the self-employed with the wherewithal to achieve greater productivity from land and also through a programme of land distribution.

The entire range of problems relating to ceilings was again considered by the Chief Ministers at the conference held in July 1972. The national guidelines on ceiling were drawn up and sent to all state governments for amendment wherever necessary.

The ceiling laws of most states have been amended and the present position with regard to the level of ceiling is indicated in Table 14.7. Family is the unit of application in all states except Meghalaya and Nagaland. In these two states, there is no ceiling on land as there is mostly community ownership of land.

TABLE 14.7
CEILING ON HOLDINGS

State	Level of ceiling (hectares)
Andhra Pradesh	4.05 to 21.85
Assam	6.74[1]
Bihar	6.07 to 18.21
Gujarat	4.05 to 21.85
Haryana	7.25 to 21.85
Himachal Pradesh	4.05 to 12.14[2]
Jammu & Kashmir	3.68 to 7.77[3]
Karnataka	4.86 to 21.85
Kerala	4.86 to 6.07
Madhya Pradesh	4.05 to 21.85
Maharashtra	7.25 to 21.85
Manipur	10.12[4]
Orissa	4.05 to 18.21
Punjab	7.00 to 21.80
Rajasthan	7.25 to 21.85[5]
Tamil Nadu	4.86 to 24.28
Tripura	2.00 to 7.20[6]
Uttar Pradesh	7.25 to 18.21
West Bengal	5.00 to 7.00

[1] Actual area of the orchard, subject to a maximum of 2.02 hectares in excess of the ceiling, can be retained.

[2] In certain specified areas up to 28.33 hectares.

[3] Orchards in excess of the ceiling can be retained subject to an annual tax.

[4] To be revised.

[5] In certain specified areas up to 70.82 hectares.

[6] Standard hectares.

Consolidation of Holdings

To consolidate scattered holdings of a landholder in compact blocks and restrain further fragmentation of sub-holdings, legislation has been enacted by state governments except the Andhra area of Andhra Pradesh, Kerala and Tamil Nadu. In Gujarat, Madhya Pradesh and West Bengal, state laws provide for consolidation on a voluntary basis on application by landholders. In other states the law provides for compulsory consolidation. In Haryana and Punjab, the consolidation of holdings has almost been completed. Some progress has been made in Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh and Delhi. By 1972, about 326 lakh hectares had been consolidated.

Evaluation and Training

The central government have set up a Land Reforms Centre at the Gokhale Institute of Politics and Economics, Poona. Evaluation of land reform and conducting training courses for field staff engaged in implementing land reform is the main work of the Centre.

ANIMAL HUSBANDRY

CATTLE DEVELOPMENT

The programmes for the development of animal husbandry and dairying aim at augmenting the supply of nutritive foods like milk, eggs and meat and helping the small and marginal farmers to diversify their economic activities.

Cross-breeding of indigenous cows with bulls of exotic dairy breeds is encouraged for augmenting milk production. Programmes for selective breeding in recognised breeding tracts and for upgrading of non-descript animals with recognised dairy breeds are being continued. To support the cross-breeding programme, about 500 exotic dairy cattle of Jersey and Friesian breeds were imported during 1973-74. Five central cattle breeding farms have been established for raising high quality bulls of Sindhi, Tharparkar and Jersey breeds and Murrah and Surti breeds of buffalo.

To locate superior germplasm of important national breeds and their utilisation for improvement, a Central Herd Registration Scheme is in operation at state livestock farms and breeding tracts of milch breeds. A Central Frozen Semen Bank has been established at Hessarghatta (Bangalore) for the production of frozen semen from high quality bulls of exotic and indigenous breeds. In addition, establishment of frozen semen stations, as a centrally-sponsored programme, has also been taken up at 5 Intensive Cattle Development Project areas.

Under the Intensive Cattle Development programme being implemented since 1964-65, 62 projects have been set up in different parts of the country. Another important cattle development scheme is the key village scheme. At present, there are 622 key village blocks.

Fodder Development

The central government has established seven regional stations in different agro-climatic conditions in the country for fodder production and demonstration. These fodder stations provide in-service training as well as training to farmers. They also hold 'field days' during different crop seasons for popularising the production of nutritive green fodders to meet the needs of exotic cross-bred and indigenous milch animals.

SHEEP DEVELOPMENT

A central sheep breeding farm has been set up at Hissar with Australian assistance for Corriedale breed of sheep. The farm has a flock strength of 3,500 Corriedale sheep. Corriedale rams are supplied to various states, to Haryana Agricultural University and to Indian Veterinary Research Institute, Izatnagar, for breeding trials. Short-term training courses for state sheep husbandry officers and a sheep shearing training course are being organised since 1972-73.

Under a centrally-sponsored scheme, establishment of five large sheep breeding farms one each in Andhra Pradesh, Jammu and Kashmir, Karnataka, Rajasthan and Uttar Pradesh was started under the Fourth Plan. These farms will be fully established during the Fifth Plan. Sites for two more farms have been selected, one in Bihar and the other in Madhya Pradesh.

In order to produce exotic germplasm for sheep improvement work in the states, 1,222 Merino sheep from USSR were imported during 1973-74.

POULTRY DEVELOPMENT

Poultry development programmes are continuing both in the public and private sectors. The estimated production of eggs in 1973-74 totalled 770 crores as against the Fourth Plan target of 800 crores. The poultry industry has also made a major breakthrough in the direction of attaining self-sufficiency in respect of genetically superior chicks. Intensification of the scientific poultry breeding programme at government farms has enabled the production of strain crosses which have given performance comparable to, and in many cases, better than the exotic hybrids available in the country.

PIGGERY DEVELOPMENT

All the eight modern bacon factories and pork processing plants established during the Third and Fourth Plan periods have gone into production. During 1973-74, about 1,000 tonnes of pork and pork products were produced at these factories. Some of these factories have diversified their products and are handling different types of meat in addition to pork and pork products.

So far, 52 pig farms and 174 piggery development blocks have been established. The regional pig breeding stations produce selected breeds of pigs for multiplication and distribution in the piggery development blocks. About 10,000 exotic pigs are now available in these farms for upgrading local stock.

Modernisation of Slaughter Houses

The programme for the modernisation of slaughter houses took concrete shape towards the end of the Fourth Plan period. Four Slaughter House Corporations have been set up in Andhra Pradesh, Karnataka, West Bengal and Goa to erect modern slaughter houses at Hyderabad, Bangalore, Durgapur and Panaji with an initial investment of nearly Rs 4 crores for producing wholesome meat and further utilising available by-products.

DAIRY AND MILK SUPPLY

Owing to drought conditions in most of the states and large scale diversion of milk for manufacturing milk products like baby food, milk powder and ghee, the average daily output of milk of all dairy plants during 1973-74 was 28.86 lakh litres as against 29 lakh litres during the previous year. The number of dairy plants in operation increased to 141 units, comprising 79 liquid milk plants, 12 factories for milk products and 50 pilot milk schemes and rural dairy centres. Besides, 31 dairy projects including some pilot schemes being developed into full-fledged units, were in different stages of implementation. During 1973, 12,350 tonnes of milk powder was manufactured in the organised sector.

FISHERIES

The production of fish in the country is estimated to have gone up from 17.69 lakh tonnes in 1968-69 to 22.70 lakh tonnes in 1973-74. During this period, the production of marine fish rose from 11.49 lakh tonnes to 14.86 lakh tonnes and that of inland fish from 6.20 lakh tonnes to 7.84 lakh tonnes.

Export and Import

The export of marine products, which stood at 38,900 tonnes valued at Rs 59.72 crores in 1972-73, rose to 52,300 tonnes valued at Rs 89.51 crores in 1973-74, showing an increase of 34 per cent in quantity and 50 per cent rise in terms of value.

Under the Limited Payments Agreement signed with the Government of Bangladesh for the import of fish during 1972-73, 3,065 tonnes of fish were imported. Also, under the Balanced Trade and Payments Agreement, 3,530 tonnes of fish were imported between 1 October 1973 and 6 July 1974.

Marine Fishing

About 9,300 mechanised boats are, at present, in operation in the country including approximately 700 introduced during 1973-74.

To stimulate deep-sea fishing, infra-structural facilities are being provided at various major and minor ports. Work is in progress on the construction of fishing harbours at the major ports of Madras and Cochin. A fishing harbour is to come up at Calcutta also. In addition, fishing harbours capable of handling large-sized fishing vessels are nearing completion at Karwar, Port Blair, Tuticorin and Vizhinjam. Plans have also been formulated for the construction of self-contained fishing harbours at 13 other sites. Apart from these projects, landing and berthing facilities on a limited scale have been provided at 70 sites. The UNDP project for the pre-investment survey of fishing harbours is being continued with assistance from the Swedish International Development Agency.

Off-shore and Deep-sea Fishing

Survey of marine resources for locating fishing grounds for the offshore and deep-sea areas has been intensified. Exploratory and experimental fishing is being carried out from 12 bases in the country as against 9 in 1973. A UNDP-assisted pelagic fisheries project is assessing the resources of surface waters in the Goa-Cochin sector. About 80 fishing vessels are now operating in the off-shore and deep-sea areas.

Inland Fisheries

The basic programmes in the inland fisheries sector are production of fish seed, rearing of fry and fingerlings in nurseries and culturing them in large sheets of water. Production of spawn and fingerlings was estimated to have reached a level of 18.88 crores and 4.83 crores respectively in 1973-74. The total nursery area now available for spawn rearing is about 923 hectares. Reclamation of derelict water areas has also been taken up by many states to increase the area under fish culture.

A scheme for the operation of Fish Farmers Development Agencies to bring about an integrated development of fisheries in selected districts is under way. Four such agencies have already started functioning.

Training

Training facilities are available at the Central Institute of Fisheries Education, Bombay, Central Institute of Fisheries Operatives, Cochin, Inland Fisheries Training Unit, Barrackpore, and the Regional Training Centre for Inland Fishery Operatives, Agra. A centre for training extension workers in fishery culture started functioning at Hyderabad in 1974.

FORESTRY

Forests in India occupy an area of about 746 lakh hectares and account for 22.7 per cent of the total geographical area. The per centage of forest area in the country is rather low as compared to most of the countries of the world. The National Forest Policy, revised in 1952, lays down that the area under forests be steadily raised to 33.3 per cent of the total geographical area, the proportion being 60 per cent in the Himalayas, Deccan and other mountainous tracts and 20 per cent in the plains. With the growth in population, urbanization and demands for agricultural land, there has been a shrinkage of forest area. Any increase in area under forests is more than off-set by the utilization of forest areas for river valley projects, rehabilitation of displaced persons, extension of area under plantations of commercial and food crops and establishment of industries and townships. Considerable improvement has, however, been brought about by scientific management over large areas.

Table 14.9 shows the classification of area under forests in 1970-71 and 1971-72.

TABLE 14.9
AREA UNDER FORESTS

(*lakh hectares*)

Description	1970–71[1]	1971–72[1]
1. *From point of view of exploitation*		
(a) Exploitable (forests in use)	461	466
(b) Potentially exploitable	141	126
(c) Others	144	154
TOTAL	746	746
2. *By Ownership*		
(a) State	710	710
(b) Corporate bodies	21	21
(c) Private individuals	15	15
TOTAL	746	746
3. *By Legal status*		
(a) Reserved	381	383
(b) Protected	283	282
(c) Unclassed	82	81
TOTAL	746	746
4. *By Composition*		
(a) Coniferous	42	42
(b) Non-coniferous (broad leaved)		
(i) Sal	116	116
(ii) Teak	89	89
(iii) Miscellaneous	499	499
TOTAL	746	746

[1] Provisional.

Production

Annual recorded production of industrial and fuel wood separately for coniferous and non-coniferous species together with royalty received by the state forest departments during 1970-71 and 1971-72 is indicated in Table 14.10.

TABLE 14.10 PRODUCTION OF INDUSTRIAL AND FUELWOOD

	1970-71[1]		1971-72[1]	
	Quantity (lakh cub. metres)	Value[2] (Rs crores)	Quantity (lakh cub. metres)	Value[2] (Rs crores)
1. *Industrial wood*		90.56		98.89
(i) Coniferous	12		13	
(ii) Non-coniferous	79		79	
TOTAL	91		92	
2. *Fuelwood (including wood for charcoal)*				
(i) Coniferous	4		4	
(ii) Non-coniferous	133		133	
TOTAL	137		137	

[1] Provisional.

[2] Relates to royalty received by state forest departments. Actual market value of the forest products is estimated to be very high.

Minor Products

Minor forest products of major importance are bamboo, canes, kendu leaves, grasses, essential oils, medicinal plants, resins, fatty oils and fats, gums, tanning materials, dyes, animal products like honey, lac, ivory and beewax. Quite a number of these are used as raw materials for large industries while some are valuable foreign exchange earners.

Table 14.11 gives the royalty received by the state forest departments for all minor forest products during 1970-71 and 1971-72.

TABLE 14.11 MINOR FOREST PRODUCTS AND ROYALTY

(*Rs crores*)

Year	Bamboos	Other minor forest products	Total
1970–71[1]	4.12	37.55	41.67
1971–72[1]	4.29	47.59	51.88

[1] Provisional.

Forestry Development

The National Forest Policy document of 1952 governs the management and development of forest resources. The main objectives of the forestry development plan are: (i) nationalisation of forestry operations; (ii) protection and management of wild life and environmental and social forestry; and (iii) commercialisation of industrial forestry operation. A programme of man-made forestry through institutional financing by setting up forest development co-operatives is being launched to achieve a substantial rise in the production of industrial wood. Measures to augment fuel wood resources and small wood for farmers through social forestry schemes have also been initiated. These programmes are expected to increase considerably the present area of 20 lakh hectares of man-made forests. Other important central sector schemes in operation include forest research, pre-investment survey of forest resources and logging training centre project.

Pre-investment Survey of Forest Resources

Pre-investment survey of forest resources was originally organised in 1965 as a joint Government of India and FAO project for the survey of forest resources. Since 1969, it is a central government project carrying out inventory work, data processing and demand and market studies. Between 1969 and 1973 this project surveyed about 75,098 sq. km of forests in Andhra Pradesh, Bihar, Jammu and Kashmir, Madhya Pradesh, Maharashtra and Uttar Pradesh.

Logging Training Centre

The centre was set up in 1965 as a joint Government of India and FAO project to train forest officers and field executives of state governments. Since 1969, it is being run as a Government of India project. From its inception, the project has trained 1,800 persons in various aspects of modern logging methodologies.

Forest Research

The Forest Research Institute at Dehra Dun is the main centre for research in forestry and forest products and for imparting forestry education. State forest departments have also organisations for silvicultural research. The Forest Research Institute has three regional centres at Bangalore, Coimbatore and Jabalpur. One more centre at Gauhati is being established. Training for forest rangers is imparted at Coimbatore, Dehra Dun and Kurseong.

Central Forestry Commission

The Central Forestry Commission with the Inspector-General of Forests as its chairman was set up in 1965 for effecting technical co-ordination, collection and dissemination of information on forestry. The Commission also acts as a technical sub-committee servicing the Central Board of Forestry.

15 COMMUNITY DEVELOPMENT AND CO-OPERATION

COMMUNITY DEVELOPMENT

The community development programme, launched on 2 October 1952, aims at bringing about an integrated development of rural India covering the social, cultural and economic aspects of community life. This is sought to be achieved through the fullest development of available human and material resources on an area basis and thereby raise the rural community to higher levels of living with the active participation and on the initiative of the people themselves. The highest priority in the programme is accorded to agriculture, which is the mainstay of about 70 per cent of the rural population. Other important sectors include improvement of communications, health, sanitation, housing, education, rural employment, welfare of women and children and cottage and small-scale industries.

The basic objective of the programme has not undergone any significant change during the Five Year Plans, though in the process of working there have been some variations in the emphasis in the programme aspect of community development. In keeping with the objective of achieving growth with social justice, the Fifth Five Year Plan has stressed the need to orientate integrated rural development towards more employment and better production base.

Programme Pattern

Initially, a community development block covered an area of about 1,300 sq. km with about 300 villages and a population of about 2,00,000. The pattern was revised from 1 April 1958. A block now covers an area of about 400-500 sq. km with 100 villages and a population of about 1,00,000. A block has two active stages of operation, stage I of five years followed by stage II of another five years. At the end of ten years, the block enters post-stage II phase.

On 2 April 1973, out of 4,589 blocks for which stage-wise break-up was available, 75 were in stage I, 1,122 in stage II and 3,392 in post-stage II phase. For implementing the programme in the blocks, there is a schematic budget provision of Rs 12 lakhs for stage I and Rs 5 lakhs for stage II. Supply of funds for the blocks remained mainly the responsibility of the central government till the end of the Third Plan (1966). But from the beginning of the Fourth Plan (April 1969), the financial arrangements became the responsibility of states.

Coverage

At the beginning of the Fourth Plan, there were 5,265 community development blocks in the country. Following reorganisation in many states, the number came down to 5,092 on 2 April 1973. This included 504 tribal development blocks.

Table 15.1 gives details of the coverage and state-wise distribution of community development blocks.

Finance

The total resources available for integrated development are much more than the nucleus budget provided for the programme. They are supplemented by resources of substantive development departments like agriculture, health and education. Besides, there are mobilisation efforts by Panchayats and voluntary contributions by the people.

TABLE 15.1
COVERAGE AND DISTRIBUTION OF COMMUNITY DEVELOPMENT BLOCKS

(As on 2 April 1973)

State/Union Territory	No. of allotted blocks	Population covered (lakhs)	Villages covered ('00)
Andhra Pradesh	324	380	271
Assam	130	142	208
Bihar	587	527	677
Gujarat	218	218	186
Haryana	83	94	71
Himachal Pradesh	69	33	117
Jammu and Kashmir	73	38	66
Karnataka	175	240	264
Kerala	144	194	16
Madhya Pradesh	457	368	704
Maharashtra	425	383	359
Manipur	14	9.3	19
Meghalaya	24	9.4	49
Nagaland	21	4.9	8
Orissa	314	208	465
Punjab	116	115	129
Rajasthan	232	226	322
Tamil Nadu	374	330	141
Tripura	17	15	49
Uttar Pradesh	875	773	1,126
West Bengal	335	358	385
Andaman and Nicobar Islands	5	1.2	4
Arunachal Pradesh	43	4.5	22
Chandigarh	1	0.2	N.A.
Dadra and Nagar Haveli	2	0.7	1
Delhi	5	4.2	3
Goa, Daman and Diu	12	8.0	2.5
Lakshadweep	4	0.3	N.A.
Mizoram	9	—	—
Pondicherry	4	4.5	4
ALL-INDIA	5,092	4,689.2	5,668.5

N.A.—Not available.

Expenditure under the Plans

The expenditure on community development in the first three Five Year Plans was Rs 501 crores. From 1967-68 to 1972-73, it was Rs 137.55 crores. The expenditure in 1973-74 was estimated at Rs 19.58 crores. The Fifth Plan outlay for community development is Rs 129.8 crores, of which Rs 16.08 crores have been set aside for 1974-75, the first year of the Plan.

People's Contribution

People's contribution in the first three Plans totalled Rs 151.3 crores. From 1966-67 to 1972-73, it amounted to Rs 15.91 crores.

Policy

The Department of Rural Development in the Ministry of Agriculture lays down policy relating to the community development programme and also formulates the pattern of expenditure to be incurred in the blocks. The responsibility for the execution of the programme is that of state governments.

Advisory Body

To advise the central government on the twin programmes of community development and Panchayati Raj, a joint consultative council was constituted in 1971. Till then there were two separate councils, one each for community development and Panchayati Raj.

Organisation

A Development Commissioner is in charge of the community development programme in every state. He also co-ordinates the policies and programmes of different state departments connected with rural development. In some states, however, there is an integrated department of agricultural production and rural development under a Secretary called the Agricultural Production Commissioner. He is in charge of agriculture in its wider sense, including community development, Panchayati Raj and co-operation.

At the district level, Zila Parishads are responsible for the coordination and implementation of the programme. The Parishads consist of elected representatives of the people, including the presidents of the Block Panchayat Samitis, members of Parliament and members of Legislative Assemblies from the concerned districts.

At the block level, the Panchayat Samiti is responsible for the programme. Its members include elected Sarpanchs (presidents of village Panchayats) and a few co-opted persons representing women, scheduled castes and scheduled tribes. The administrative personnel, consisting of a Block Development Officer and eight Extension Officers who are experts in different fields such as agriculture, co-operation and animal husbandry, work under the direction of the Samiti. Voluntary associate organisations like youth clubs, farmers' forums and Mahila Mandals, supplement the work of the Panchayats. At the village level, while the Panchayat is in overall control of the programme helped by associate organisations, the Gram Sevak acts as a multi-purpose extension agent having about 10 villages in his charge.

SPECIAL PROGRAMMES

A number of special programmes are in operation for the benefit of the rural population. These are described below.

Drought Prone Areas Programme

The Drought Prone Areas Programme, formerly known as Rural Works Programme, was started in 1970-71 in 54 chronically drought prone districts in the country. Initially, the programme aimed at mitigating the severity of scarcity conditions by executing rural works for generating employment. In the Fifth Plan, the main thrust is to restore a proper ecological balance in the drought prone areas. Some of the important elements envisaged in this integrated approach are changes in agronomic practices, restructuring of cropping pattern and pasture development through proper management of irrigation resources, livestock development and development of small and marginal farmers and agricultural labourers.

For the first four years of the programme (1970-71 to 1973-74), a provision of Rs 100 crores was made in the non-Plan central sector. At the time of the mid-term Plan appraisal in 1971, the programme was transferred to the central Plan.

From its inception, schemes costing nearly Rs 113 crores have been sanctioned, of which minor irrigation schemes account for about 60 per cent, rural communications about 25 per cent and the balance for other programmes. All these works have generated employment of over 13 crore mandays. In the Fifth Plan, Rs 187 crores have been allocated for this programme. The expenditure during 1974-75 is expected to be Rs 22 crores.

Prime Minister's Drought Relief Fund

The Prime Minister's Drought Relief Fund was set up in 1966 to mobilise resources for the relief of distressed persons in drought-stricken areas. The approved purposes now include assistance to the victims of other natural calamities.

Contributions to the Fund qualify for exemption from income-tax. Disbursements are made with the personal approval of the Prime Minister. The amount disbursed since the establishment of the Fund totals Rs 1.83 crores, of which Rs 1.68 crores were sanctioned for relief operations and Rs 15 lakhs for protective irrigation works.

Crash Scheme for Rural Employment

The Crash Scheme for Rural Employment was started in 1971 for three years with an allocation of Rs 150 crores for the benefit of the unemployed in rural areas. In the last year of its operation in 1973-74, Rs 40.39 crores were spent which resulted in the generation of 934.55 lakh mandays of employment. The projects executed under the scheme related to road building, reclamation and development of land, flood protection, minor irrigation and afforestation.

PIREP

The Pilot Intensive Rural Employment Project (PIREP) was launched in 1972-73 in 15 selected blocks to assess the dimension of the problem of unemployment, its extent and pattern and the probable cost of full employment. In the first year of its operation, Rs 1.22 crores were spent which resulted in the generation of 32.82 lakh mandays of employment. From November 1973 to October 1974, an outlay of Rs 2.48 crores was provided. For 1974-75, a provision of Rs 6 crores has been made.

Applied Nutrition Programme

The Applied Nutrition Programme, a centrally-sponsored programme carried out in collaboration with UNICEF, FAO and WHO, is intended to educate the rural people in improved nutrition. The programme specially aims at securing needed nutritional supplements for children below 5 years and expectant and nursing mothers. Youth and Mahila Mandals are actively associated with the production of nutrition foods.

Up to 31 March 1974, the programme had covered 1,181 blocks. In the Fifth Plan, the programme will be extended to 700 new blocks. The Plan outlay for this purpose is Rs 20 crores. The central government gives Rs 34,000 annually to each existing block for items which are not included in the state plans but are essential for the success of the programme. In the Fifth Plan, the central government's contribution for the new blocks has been increased to Rs 40,000 per block. The central government provided Rs 1 crore for the programme in 1973-74. For 1974-75, a provision of Rs 1.48 crores has been made.

Composite Programme for Women and Pre-school Children

The Composite Programme for Women and Pre-school Children launched in 1969-70 lays stress on organised activities in nutrition, education and allied fields through the existing institutions of Mahila Mandals and Balwadis. The scheme operates in rural areas not covered by the applied nutrition programme and family and child welfare projects. The programme has five components, three in the central sector with full financial assistance and two in the state sector for which funds are provided by states and union territories. The central government provided Rs 30.5 lakhs for the programme in 1973-74.

Pilot Research Project in Growth Centres

This centrally-sponsored scheme was initiated during the Fourth Plan with an outlay of Rs 75 lakhs. It aims at evolving a broad research methodology for the development of emerging and potential growth centres by providing social and economic overheads in delineated areas in terms of a prepared inventory of local needs.

Twenty research and investigation cells were established under the scheme in different states and union territories to collect relevant data through field surveys and prepare action programmes for the creation of infrastructure facilities in the base areas for their development. Ten of the 20 research cells had finalised their reports by 31 March 1974, the last year of the programme.

OTHER PROGRAMMES

Besides the special programmes, a number of other programmes are also being implemented for the integrated development of rural areas. These are briefly described below.

Agriculture and Allied Programmes

For motivating farmers to maximise production, community development and Panchayati Raj agencies are giving top priority to agriculture and allied programmes. These include formulation and implementation of field programmes for the development of horticulture, animal husbandry, distribution of improved seeds, fertilizers, pesticides, construction and maintenance of minor irrigation works, bunding and a host of other activities.

The average distribution per block during 1972-73 was 1,398 quintals of seeds, 13,652 quintals of fertilizers, 217 quintals of pesticides and 103 implements as against 1,623 quintals of seeds, 17,342 quintals of fertilizers, 171 quintals of pesticides and 143 implements in the previous year. In the same period, 13.83 lakh hectares of cultivated area were improved through bunding and terracing and 3 lakh hectares of land reclaimed.

Whole Village Development Programme

For both special and functional integration of all programmes connected with agricultural production and reduction of unemployment and under-employment, a new programme called the Whole Village Development Programme has been launched in the Fifth Plan as a pilot project in 38 villages in Bihar, Orissa, Tamil Nadu and Uttar Pradesh. Basic components of the programme are consolidation of holdings, overall land development planning through irrigation support and restructuring of the cropping pattern. The Fifth Plan outlay for the new scheme is Rs 5 crores. The expenditure anticipated in 1974-75 is Rs 50 lakhs.

Village and Small Industries Programme

Village and small industries in the blocks are given financial assistance in the shape of loans as well as grants and subsidies. Loans amounting to Rs 88 lakhs were given to rural artisans in 1972-73. In the same year, 13,856 industrial units were located in villages with a population of 5,000 or less as against 13,705 units in 1971-72. Improved tools worth Rs 6.9 lakhs were distributed in 1972-73 showing an increase of about 60 per cent over the previous year.

Health and Family Planning

To create awareness and responsiveness among the village people about the need to have a small family, family planning receives high priority in the block programmes. A total of 5,197 primary health centres were in existence during 1972-73 and 5,201 family planning centres were functioning in rural (main) centres besides 32,423 subcentres set up under the health and family planning programmes.

Voluntary Action and Public Co-operation Schemes

To promote voluntary action and public co-operation in community development programme, new schemes were prepared for inclusion in the Fifth Plan with an outlay of Rs 1.78 crores. These schemes include various measures for promotion of associate organisations, introducing simplified system of registration of rural voluntary groups, helping them undertake definite activities and giving them maintenance grants and incentive awards. A provision of Rs 16.80 lakhs has been made for these schemes in 1974-75.

Social Education

The number of adult literacy centres that functioned in the blocks from time to time up to 31 March 1973 was 6.57 lakhs imparting literacy to about 1.8 crore adults. The number of new centres started and of adults made literate during 1972-73 was 16,000 and 3.44 lakhs respectively as against 10,000 and 2.24 lakhs respectively during the previous year.

There were 52,538 Mahila Mandals with a membership of 13.6 lakhs during 1972-73 as compared to 52,745 with a membership of 11.8 lakhs in 1971-72. Over 88,000 youth clubs with a membership of 18.8 lakhs were in existence during 1972-73 as against 83,035 with a membership of 16.5 lakhs during the previous year. The number of social education organisers and Mukhya Sevikas in position in various states and union territories was 5,525 and 2,018 respectively.

Tribal Development Blocks

For the uplift of the tribal areas, 504 tribal development blocks are functioning. A sum of Rs 32.50 crores had been provided for these blocks during the Fourth Plan period.

In the Fifth Plan, Rs 10 crores have been provided for this programme for the first year of the Plan. The stress will be on integrated area development plans which will combine the activities of tribal development blocks with tribal development agencies and other projects launched by the central government in states.

Pilot Project for Tribal Development

A special programme called the Pilot Project for Tribal Development was launched in 1972-73 for the development of six selected tribal areas in Andhra Pradesh, Bihar, Madhya Pradesh and Orissa. Under this programme, the special tribal development agencies are studying in depth the problems of tribal areas relating to communications, administration, social services and economic development, especially agriculture. This programme will, for the present, continue till 1976-77. The grants-in-aid made to these tribal development agencies up to 31 March 1974 was Rs 4.4 crores. The allocation for this programme in the Fifth Plan is Rs 10 crores.

Hill Areas Development Programmes

For all round development of agriculture and improvement in the living conditions of the farmers in the hilly areas, some pioneering projects were taken up in Himachal Pradesh, Tamil Nadu and Uttar Pradesh under the Indo-German Assistance Programme. Based on the encouraging results achieved in these projects, two more such projects in Manipur and Uttar Pradesh were taken up in the last year of the Fourth Plan but financed entirely out of domestic resources. These projects will continue in the Fifth Plan and Rs 3 crores have been allocated for the purpose.

TRAINING

With a view to developing proper understanding of the basic objectives underlying the community development and Panchayati Raj programmes, training is given at Composite Training Centres under the administrative control of various state governments to officials and non-officials connected with these programmes.

The National Institute of Community Development, Hyderabad, which is an autonomous body, functions as an apex institute for providing training in the philosophy and aims of community development. It also functions as a clearing house of information on community development and Panchayati Raj.

Various other schemes are in operation to provide training to the rural youth (through short duration camps and encouraging economic activities through grant of incentive awards), people's representatives in Panchayati Raj institutions and village leaders (through sammelans), and school teachers (through orientation courses).

TABLE 15.2
ACHIEVEMENTS OF C.D. PROGRAMME

Activity	Total achievements during		Average achievement per reporting block	
	1971-72	1972-73[1]	1971-72	1972-73[1]
I Agriculture				
Improved seeds distributed (quintals)	66,93,000	61,93,000	1,623	1,398
Chemical fertilizers distributed (quintals)	7,42,94,000	6,04,61,000	17,342	13,652
Chemical pesticides distributed (quintals)	7,04,000	9,61,000	171	217
Improved implements distributed	5,88,000	4,55,000	143	103
Agricultural demonstrations held	3,53,000	3,93,000	86	89
New compost pits dug	58,03,000	43,96,000	1,411	993
II Land Improvement				
Land reclaimed (hect.)	2,77,000	3,00,000	67	68
Area bunded & terraced (hect.)	8,16,000	13,83,000	198	312
III Animal Husbandry				
Improved animals supplied	34,000	27,000	8	6
Improved birds supplied	21,26,000	20,95,000	517	473
Animals castrated	31,68,000	33,32,000	770	752
Animals artificially inseminated	20,36,000	21,47,000	495	487
IV Health and Rural Sanitation				
Rural latrines constructed	31,000	40,000	7.6	9.1
Pucca drains constructed (metres)	15,95,000	6,81,000	388	154
Village lanes paved (sq. metrss)	29,03,000	30,01,000	677	678
Soakage pits constructed	68,000	58,000	17	13
Drinking water wells constructed	18,000	29,000	4	6.5
Drinking water wells renovated	16,000	20,000	3.9	4.5
V Social Education				
Adult Literacy Centres started	10,000	16,000	2.5	3.7
Adults made literate	2,24,000	3,44,000	54	78
Functional Gram Sahayak camps organised	5,000	4,000	1.2	0.9
Leaders trained	1,37,000	1,15,000	33	26
VI Communications				
New kacha roads constructed (km)	28,000	61,000	7	14
Existing kacha roads improved (km)	48,000	62,000	12	14
Culverts constructed	17,000	22,000	4	5
VII Village and Small Industries				
Value of improved tools and appliances distributed:				
(a) Blacksmithy (Rs)	2,28,000	2,20,000	55	50
(b) Carpentry (Rs)	1,99,000	4,78,000	48	108

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[1] Provisional.

Under different aid programmes such as the Colombo Plan, Special Commonwealth African Assistance Plan and the Indian Technical Economic Co-operation Programme, nominees of foreign governments, especially from the developing countries, are offered training facilities in community development and Panchayati Raj courses at different training institutes in the country. In 1973-74, study tours were arranged for 18 nominees of foreign governments.

ACHIEVEMENTS Table 15.2 shows the achievements in selected items of activity under the community development programme.

PANCHAYATI RAJ

Panchayati Raj, which was introduced in 1959, is a three-tier structure of local self-government at the village, block and district levels. However, the states are free to make changes in the structure to suit local conditions. All Panchayati Raj bodies are organically linked up. Special representation on these bodies is given to interests like backward classes, women and co-operative societies. Elected directly by and from among villagers, the Panchayats are responsible for agricultural production, rural industries, medical relief, maternity and child welfare, common grazing grounds, village roads, tanks and wells and maintenance of sanitation. In some places they also look after primary education, maintenance of village records and collection of land revenue.

Coverage Panchayati Raj now covers all the states excepting Meghalaya, Nagaland and 24 out of 29 districts in Bihar. The institution of village Panchayats exists in all the union territories except Lakshadweep, Mizoram and Pondicherry. Arunachal Pradesh has a three-tier system of Panchayati Raj.

There are at present 2,22,054 village Panchayats covering a population of 41.51 crores. In addition, there are 4,095 Panchayat Samitis and 232 Zila Parishads.

Activities The Panchayat, the co-operative and the school are the basic institutions at the village level for carrying out the programme of democratic decentralisation. The elected Panchayat is in charge of all development programmes in the area. The co-operative functions in the economic sphere. The village school, which is also a community centre, looks after educational, cultural, recreational and allied fields. Associate organisations, such as, women and youth organisations, farmers' and artisans' associations functioning in their respective spheres, are linked up with the Panchayat in its developement activities and are supported in turn by the Panchayat in their work.

With most of the country covered by Panchayati Raj, the emphasis now is on consolidation of these institutions and bringing into sharper focus their role in the rural development effort.

Finance Panchayati Raj institutions have their own powers of taxation. They levy taxes on houses and some types of lands, fairs and festivals and sale of goods and impose octroi duties. They also build up remunerative community assets.

The powers and responsibilities of Panchayati Raj institutions are derived not only from the respective state legislations, but also from the procedures—administrative and financial—laid down by state governments to give effect in practice to the statutory provisions. Gujarat, Maharashtra and Tamil Nadu have invested their institutions with programme responsibilities over a wide and growing range of activities. Some other state governments, namely, Andhra Pradesh, Gujarat, Maharashtra and Rajasthan are trying to effect improvements in the system through high power committees.

Nyaya Panchayats For providing speedy and inexpensive system of justice to the villagers, Nyaya (judicial) Panchayats or village courts are functioning in some of the states.

CO-OPERATION

The idea of co-operation took concrete shape in India for the first time in 1904 when the Co-operative Credit Societies Act—a measure designed to combat rural indebtedness and provide for credit societies—was passed. Since then the co-operative movement has made progress[1] specially in the fields of agricultural credit, supply of farm inputs, processing and marketing.

The emphasis in the Fourth Plan was on agricultural and consumers' co-operatives. In the Fifth Plan, the objective is to consolidate and strengthen co-operatives as viable structures so as to enable them to play an important role in implementing the national policy of growth with social justice. In keeping with this objective, measures will be initiated to correct regional imbalances, establish farmers' service societies as postulated by the National Commission on Agriculture and focus the attention of co-operatives increasingly in favour of small and marginal farmers and other under-privileged sections of the population.

According to an assessment, about 33 crore persons out of the total population of 54.8 crores were being served by the co-operative movement by 30 June 1972.

The value of agricultural produce handled by the co-operatives increased from about Rs 175 crores in 1961-62 to about Rs 950 crores in 1972-73, thus exceeding the Fourth Plan target by Rs 100 crores. During the same period the value of chemical fertilizers distributed by the co-operatives increased from Rs 32 crores to Rs 320 crores. The share of co-operatives in the total production of sugar rose from 1.5 per cent in 1955-56 to 37 per cent in 1972-73.

The Consultative Council on Co-operation, which advises the central government on policy matters, recommended in 1973 that the functions and responsibilities of the Board of Directors and the Chief Executive of Co-operatives might be demarcated and management cadres created for co-operative institutions.

Growth of Co-operatives The salient features and operational dimensions of the co-operative movement in India for selected years between 1951-52 and 1971-72 are given in Table 15.3.

A study of the data in the above Table shows that between 1951-52 and 1971-72 membership of primary societies increased by more than four times, the share capital of all co-operatives increased by more than fifteen times and their working capital by more than twenty-two times.

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[1] For a fuller account of the growth of the co-operative movement, see chapter XXII 'India 1962'.

TABLE 15.3
GROWTH OF CO-OPERATIVES

	1951-52	1961-62	1969-70	1970-71	1971-72
No. of societies (thousands)	186	342	317	320	324
Membership of primary societies (lakhs)	137·92	378·36	588.06	590.64	614.13
Share capital (Rs crores)	49·08	259·69	753·03	850·72	944.08
Working capital (Rs crores)	306·34	1,534·78	5,154·42	6,809·59	7,695.52

Agricultural Credit

Co-operatives, which continue to be the main institutional source for agricultural credit, are estimated to have advanced loans amounting to Rs 864 crores to farmers during 1972-73.

Co-operatives, which provided about Rs 50 crores as short and medium-term loans in 1955-56, gradually increased their lending to an estimated Rs 685.56 crores in 1972-73. The quantum of long-term loans also registered a substantial rise and stood at Rs 178.46 crores in 1972-73. The number of primary agricultural credit societies on 30 June 1973 was 1.58 lakhs with a membership of about 3.4 crores, covering 95 per cent of the villages in the country and 43 per cent of agricultural families.

In the Fifth Plan, the emphasis will be on strengthening and expanding institutional agencies for meeting the growing demand for agricultural credit. Production credit requirements for the country as a whole for the last year of the Fifth Plan have been estimated at Rs 3,000 crores. Of this, co-operatives are expected to meet over 40 per cent. As regards medium-term and long-term credit, targets of Rs 325 crores and Rs 1,500 crores respectively have been visualised for the Plan period.

Members of the co-operatives enjoy a number of concessions for obtaining credit. The Reserve Bank of India has agreed that medium-term loans up to Rs 2,000 can be provided to members of the co-operatives for dairy and poultry purposes on personal surety basis, *i.e.*, without obtaining a mortgage or a charge on land, provided adequate facilities exist for marketing of dairy and poultry products and for recovery of dues out of sale proceeds. Similarly, the Reserve Bank has indicated that at least 20 per cent of the outstanding borrowings of the central co-operative banks from the concerned state co-operative banks shall be earmarked for financing small or marginal farmers. Co-operatives may sanction medium-term loans up to Rs 3,500 for minor irrigation purposes and for agricultural machinery, without obtaining a mortgage or charge on land, provided the balance of the capital outlay involved is met by the concerned borrower out of his own resources.

Concessions are also available to small, marginal and economically weak farmers in the matter of their contributions to the share capital as well as in respect of the percentage of their borrowings and payment of instalments. For short-term loans, relaxations have been allowed for these categories by reducing the share capital required to be held by them to 10 per cent and by allowing them to pay the reduced amount of share capital in convenient instalments of 5 per cent in the first year and 2½ per cent in the subsequent 2 years.

The list of easily identifiable productive purposes notified by the Reserve Bank of India has been expanded to include some more items like levelling, bunding and reclamation of land, soil conservation by terracing and construction of drainage channels to prevent flooding. Provision of short-term credit is also extended to unregistered tenants and share croppers, subject to certain safeguards.

Credit for Small Farmers

Financial assistance to small farmers in the Small Farmers Development Agencies (SFDA) and Marginal Farmers and Agricultural Labourers (MFAL) areas is provided in the shape of risk fund and managerial subsidy to strengthen the co-operative credit structure.

The central government have set up Small Farmers Development Agencies in 46 districts to identify the problems and needs of small farmers in their areas, prepare appropriate programmes and implement them with the necessary inputs, services and credit. The existing credit institutions are being utilised for this purpose. To stimulate the flow of credit to small farmers these agencies provide grants to central co-operative banks, primary credit societies and co-operative land development banks for building up special risk funds. Special assistance for managerial and supervisory staff is also provided by these agencies. In addition, the central government have set up 41 projects for marginal farmers and agricultural labourers. These projects lay special stress on the provision of supplementary occupations and other employment opportunities through rural works. In these projects, provision of credit through co-operatives is being stepped up for the under-privileged classes.

The SFDA and MFAL projects started functioning on a significant scale only from the co-operative year 1971-72. On 31 March 1973 the identified participants were 23.66 lakhs under SFDA and 11.27 lakhs under MFAL projects. The total loans disbursed by co-operatives as well as commercial banks nearly doubled from Rs 26.16 crores to Rs 49.43 crores under SFDA and increased sixfold from Rs 1.57 crores to Rs 9.36 crores under MFAL projects.

During 1971-72, for which the latest statistics published by the Reserve Bank of India are available, Rs 181.1 crores were disbursed to small cultivators (with holdings of less than 2 hectares), tenant cultivators and agricultural labourers. This represented about 30.6 per cent of the short and medium-term loans advanced by primary agricultural credit societies in 15 states and 6 union territories. During the same period, the land development banks in 10 states and 2 union territories, for which data were available, advanced Rs 27.3 crores to small cultivators (with holdings of less than 2 hectares) representing about 29 per cent of the total loan of Rs 94.55 crores disbursed by these banks.

Credit for Fertilizers

Credit to co-operatives for procurement, stock-piling and distribution of fertilizers is provided by the Reserve Bank of India, the State Bank of India and other nationalised banks. During 1972-73, the co-operatives are estimated to have distributed fertilizers valued at Rs 320 crores.

Agricultural Credit Co-operatives

The agricultural credit co-operatives have a three-tier credit structure, consisting of the co-operative banks at the state level, central co-operative banks at the district level and primary agricultural credit societies at the village level.

They provide short-term and medium-term agricultural credit. The number, membership and financial operations of the state co-operative banks, central co-operative banks and primary agricultural credit societies for selected years between 1951-52 and 1971-72 are indicated in Tables 15.4, 15.5 and 15.6.

TABLE 15.4
STATE CO-OPERATIVE BANKS

	1951-52	1961-62	1971-72
Number of banks	16	21	26
Membership	23,272	30,468	19,133
Share capital (Rs lakhs)	190	2,126	4,569
Statutory and other reserves (Rs lakhs)	236	759	5,717
Deposits (Rs lakhs)	2,118	8,144	33,045
Other borrowings (Rs lakhs)	1,127	14,579	27,009
Working capital (Rs lakhs)	3,672	25,609	73,106
Loans advanced (Rs lakhs)	5,527	25,629	93,160
Loans outstanding (Rs lakhs)	2,001	19,651	55,274
Loans overdue (Rs lakhs)	322	810	3,834

TABLE 15.5
CENTRAL CO-OPERATIVE BANKS

	1951-52	1961-62	1971-72
Number of banks	509	377	341
Membership	2,31,318	3,87,740	3,18,941
Share capital (Rs lakhs)	462	4,660	15,763
Statutory and other reserves (Rs lakhs)	519	1,389	6,803
Deposits (Rs lakhs)	3,823	12,262	50,973
Other borrowings (Rs lakhs)	1,207	16,478	40,110
Working capital (Rs lakhs)	6,011	34,789	1,19,357
Loans advanced (Rs lakhs)	10,564	37,986	1,01,970
Loans outstanding (Rs lakhs)	3,591	25,648	88,886
Loans overdue (Rs lakhs)	487	4,006	31,936

TABLE 15.6
PRIMARY AGRICULTURAL CREDIT SOCIETIES

	1951-52	1961-62	1969-70	1971-72	1972-73[1]
Number of societies	1,07,925	2,15,081	1,62,700	1,57,454	1,57,775
Membership (lakhs)	47.77	195.72	297.65	220.09	344.23
Share capital (Rs crores)	8.92	68.61	188.70	224.83	237.08
Deposits (Rs crores)	4.39	17.64	62.67	74.78	76.82
Working capital (Rs crores)	45.22	325.33	921.64	12,76.17	1,225.72
Loans advanced (gross) (Rs crores)	24.21	228.31	540.11	614.53[2]	685.56
Loans outstanding (Rs crores)	33.66	256.68	711.44	858.26	905.48
Loans overdue (Rs crores)	8.52	62.93	268.25	375.66	364.45
Average per Society					
Membership	44	91	183	203	253
Share capital (Rs)	827	3,190	11,598	14,279	15,026
Deposits (Rs)	408	820	3,852	4,749	4,869
Loans advanced (Rs)	2,243	10,615	33,196	39,029	43,452

[1] Provisional. [2] Includes gross advances by Jammu and Kashmir.

At the end of 1971-72, out of about 1,57,454 primary agricultural credit societies, the active ones numbered 1,36,560 and covered over 95 per cent of the villages and 38 per cent of the rural population.

Co-operative Land Development Banks

Long-term finance to agriculturists is provided by co-operative land development banks. They have a two-tier structure in most states with central land development banks at the state level and primary land development banks at the block, tehsil, sub-division and district levels. In a few states like Bihar, Gujarat, Jammu and Kashmir, Maharashtra and Uttar Pradesh, the unitary structure at the state level operates through branches opened in districts and tehsils. During 1972-73, these banks advanced about Rs 178.47 crores as loans to individuals. They raise their resources mainly by floating ordinary debentures in the market. During 1972-73, land development banks raised over Rs 100 crores through ordinary debentures.

Other Credit Agencies

A number of other agencies also provide credit to agriculturists for various purposes.

The Agricultural Refinance Corporation supplements the long-term resources of land development banks, state co-operative banks and scheduled commercial banks. During 1973-74, the Corporation sanctioned 319 additional integrated agricultural development projects. The total number of schemes sanctioned by the Corporation, excluding those withdrawn, stood at 1,242 on 31 March 1974 involving financial assistance of Rs 716.84 crores of which the Corporation's commitment amounted to Rs 625.67 crores.

The Rural Electrification Corporation was set up in 1969 as an autonomous body under the Ministry of Irrigation and Power to promote and finance the setting up of rural electric co-operatives. Five rural electric co-operatives, one each in Andhra Pradesh, Gujarat, Karnataka, Maharashtra and Uttar Pradesh, financed by the Corporation, went into operation between October 1970 and March 1971.

The National Co-operative Development Corporation (NCDC) was established in 1963 under an Act of Parliament for planning and promoting programmes for the production, processing, storage and marketing of agricultural produce and other notified commodities through co-operative societies. NCDC's activities now cover Jammu and Kashmir also. The NCDC Act has been amended to enlarge the scope of its activities to cover specifically dairy, poultry and fishery programmes and programmes for tribals through co-operatives.

Non-Agricultural Credit Societies

Urban credit is provided by non-agricultural credit societies which include, among others, urban banks and employees' credit societies. These institutions raised deposits of Rs 311.83 crores during 1970-71 and made gross advances of Rs 465.5 crores to its members.

Other Co-operatives

Consumer Co-operatives

Apart from co-operatives which advance credit to agriculturists, there is a countrywide network of consumer co-operatives to help in the fair and equitable distribution of consumer goods under the public distribution system. As on 30 June 1973, there were about 400 central and wholesale consumer co-operatives, about 13,100 primary consumer co-operatives, 14 State Federations of Consumer Co-operatives and the National Co-operative Consumers' Federation at the apex. The central and wholesale co-operatives had also set up about 2,050 branches and were running 109 department stores (Super Bazars). The total retail sales of consumer co-operatives during 1972-73 were estimated at about Rs 300 crores. In the Fifth Plan, a pivotal role is envisaged for consumer co-operatives in the distribution of essential consumer goods and of articles of mass consumption. The Plan provides for an outlay of Rs 10.50 crores under the centrally-sponsored and central sector schemes. An equivalent outlay has also been provided for under the state sector of the Plan.

NCCF

The National Co-operative Consumers' Federation (NCCF), which comprises state consumer co-operatives, undertakes commercial as well as promotional activities. Its annual business increased to Rs 11.43 crores in 1972-73 as against Rs 6.04 crores in 1971-72. The Federation has been recognised as the procuring and co-ordinating agency at the national level for sale of controlled cloth under the statutory scheme introduced in November 1972. It has also set up a consultancy and promotional cell to provide expert guidance and advice in various aspects of operation and management of consumer co-operatives. A team of ILO experts is attached to this cell.

Marketing and Processing Co-operatives

In 1972-73, the co-operative marketing structure consisted of the National Agricultural Co-operative Marketing Federation, 22 state-level marketing federations, 362 district and central marketing societies and 3,240 primary co-operative marketing societies covering nearly all the secondary markets in the country. The total value of agricultural produce handled by such co-operatives increased from Rs 175 crores in 1961-62 to over Rs 900 crores in 1972-73. The value of foodgrains, sugar and cotton handled by these co-operatives in 1972-73 was Rs 321 crores, Rs 320 crores and Rs 243 crores respectively.

The structure of processing units established in the co-operative sector conforms to two distinct patterns, namely, units established by independent processing societies and units established as adjuncts to co-operative marketing societies. Under the first category fall the larger units such as sugar factories, solvent extraction plants and spinning mills. Medium and small units such as rice mills, oil mills, jute baling units, cotton ginning and pressing units mostly fall under the second category. Of the 1,790 processing units organised by 31 March 1973, about 1,250 units were established as adjuncts to marketing societies and the remaining units were independent societies. The co-operative sugar factories have formed themselves into 8 state federations and a national federation. Eighty-seven sugar factories were in production during 1972-73. They produced 14.19 lakh tonnes of sugar which was about 37 per cent of the country's total production of sugar.

To help farmers, co-operatives have diversified their activities in recent years to cover new lines of business like production of granular fertilizers, production, processing and distribution of seeds, manufacture and distribution of improved agricultural implements and setting up of agro-service centres.

The number, membership and working capital of different types of non-credit co-operative societies as on 30 June 1972 are shown in Table 15.7.

IFFCO

The Indian Farmers' Fertilizers Co-operative (IFFCO) is jointly owned by co-operatives in 10 states and the Government of India. It is setting up ammonia and urea plants at Kalol and a NPK plant at Kandla at a cost of Rs 191.6 crores with an annual capacity of 3,00,300 tonnes of ammonia, 3,06,000 tonnes of urea and 3,75,500 tonnes of NPK.

NAFED

The National Agricultural Co-operative Marketing Federation (NAFED), which is made up of all co-operative marketing societies in the country, promotes inter-state and export trade of farm products. It exports commodities like pulses, chillies, ginger, groundnut meal, garlic and cardamom to Australia, Belgium, Canada, Fiji, Hongkong, Japan, Malaysia, Mauritius, Singapore, Sri Lanka, UK, USA and a number of African, West Asian and Gulf countries.

Storage Capacity

Co-operatives formulate and implement schemes for creation of storage capacity with financial assistance from the National Co-operative Development Corporation and the Agricultural Refinance Corporation. So far, assistance has been given for the construction of storage capacity of about 42 lakh tonnes, of which godowns with storage capacity of 32 lakh tonnes had been constructed up to 30 March 1973.

On 30 November 1973, there were 80 co-operative cold storages with a total capacity of 1.17 lakh tonnes; 48 more units were under various stages of installation.

TABLE 15.7
NUMBER, MEMBERSHIP AND WORKING CAPITAL OF NON-CREDIT CO-OPERATIVE SOCIETIES

Type of society	Number	Membership	Working capital (Rs lakhs)
Marketing societies			
National	1	22	427
State	28	7,756	30,010
Central	365	23,80,734	11,243
Primary	3,260	28,87,336	18,363
Sugarcane supply societies			
State	1	134	874
Central	203	22,49,029	3,924
Primary	23	60,340	35
Milk unions	154	35,067	3,427
Milk supply societies	13,281	11,37,213	2,237
Farming societies	9,605	2,63,354	1,952
Irrigation societies	3,869	1,36,710	1,245
Sugar factories	144	5,59,653	39,183
Cotton ginning and processing societies	171	1,36,593	1,733
Other Agricultural processing societies			
State	3	8,042	225
Central	2	1,205	65
Primary	1,165	2,03,868	1,487
Weavers' societies			
National	1	1,366	305
State	25	9,496	1,596
Central	98	5,869	312
Primary	12,149	7,94,863	6,431
Spinning mills	61	1,53,157	7,645
Other industrial societies			
State	18	2,369	155
Central	106	11,709	320
Primary	33,612	9,97,259	5,798
Consumers' societies			
Wholesale[1]	395	9,32,293	5,630
Primary	12,883	34,30,933	3,940
Housing societies			
State	17	8,178	12,895
Primary	20,217	12,98,073	45,833
Fishermen's societies			
State	8	4,939	145
Central	51	12,622	551
Primary	4,439	4,64,416	1,166
Insurance societies	6	14,817	388
Other non-credit societies	15,970	17,68,285	6,762

[1] Including state level stores.

Co-operative Farming

Only joint farming and collective farming societies are recognised as co-operative farming societies. In a joint farming society, land-owning members pool their lands and cultivate them jointly. In a collective farming society, the society holds land on free-hold or lease-hold basis and the land is cultivated jointly by its members. As on 30 June 1973, there were 9,732 co-operative farming societies with a membership of 2.68 lakhs, commanding a total area of 4.88 lakh hectares. Of these, the number of joint farming societies was 5,123 with a membership of 1.22 lakhs and commanding an area of 2.87 lakh hectares. The number of collective farming societies was 4,609 with a membership of 1.46 lakhs and commanding an area of 2.01 lakh hectares. Formation of collective farming societies is encouraged in respect of lands rendered surplus through implementation of land reform measures in areas where conditions for their success are favourable.

Training of Personnel

The National Co-operative Union of India is responsible for the implementation of the training and education programme in the country at the national level. The Committee for Co-operative Training set up by it plans, administers and guides the institutional training arrangements. At present, the Committee is in overall charge of the Vaikunth Mehta National Institute of Co-operative Management at Poona and 14 other co-operative training colleges.

Training of junior personnel is looked after by states. This programme is carried out either through the State Co-operative Unions or the District Co-operative Unions or state government machinery.

The Reserve Bank provides training facilities at the Co-operative Bankers' Training College, Poona, run by it for the senior and intermediate level personnel of co-operative banks.

16 IRRIGATION AND POWER

IRRIGATION

The vulnerability of India's agriculture owing to the vagaries of the monsoon has made it imperative to accord irrigation a high place in the national development plans. More than 600 major and medium projects were taken up after Independence of which 380 have been completed and many others have started yielding partial benefits. The irrigation potential of major and medium projects has more than doubled from what it was in the pre-Plan period. The total irrigated area in the country, which was about 2.26 crore hectares in 1950-51, rose to about 4.47 crore hectares in 1973-74. The total cropped area in that year was about 16.90 crore hectares.

Water Potential

A broad assessment of the water resources of the country by different agencies places the total average annual surface run-off as varying from 1,67,300 crore cubic metres to 1,88,100 crore cubic metres and the approximate annual groundwater recharge as 42,400 crore cubic metres. The utilisable surface and groundwater resources were assessed by the Irrigation Commission in 1972 as 87,000 crore cubic metres. Against this, the utilisation, which was about 17,250 crore cubic metres in 1950-51, had risen to about 33,700 crore cubic metres by March 1974.

With the possibilities of diverting the normal flow of rivers into irrigation canals having been almost exhausted, effort is now directed at impounding by dams the surplus river flows during the monsoon for use in dry weather and the development of groundwater in minor irrigation programmes.

Growth of Irrigation Potential and Utilisation

In 1951, the irrigated area from major and medium projects was 97 lakh hectares. By 31 March 1974, 380 out of a total of 610 major and medium projects taken up since 1951 had been completed and an additional potential of 1.15 crore hectares was estimated to have been created. Table 16.1 shows the growth of irrigation potential and the corresponding utilisation from major and medium projects since the advent of planning.

TABLE 16.1
GROWTH OF IRRIGATION (*Major and Medium Projects*)

(*lakh hectares*)

	Additional potential at the end of			
	1st Plan	2nd Plan	3rd Plan	4th Plan
Potential	25	46	69	115
Utilisation	15	33	55	98

Investment during the Plans

The total investment on major and medium irrigation projects between 1951-52 and 1973-74 was Rs 2,948 crores and on flood control and drainage works Rs 347 crores. The outlay for 1974-75 is Rs 346 crores and Rs 39 crores respectively. The proposed Fifth Plan outlay for major and medium irrigation projects is Rs 2,401 crores and that for flood control Rs 281 crores.

Minor Irrigation

The Fourth Plan target of covering 72 lakh hectares by minor irrigation has been exceeded by about 10 lakh hectares. A sum of Rs 119 crores in the public sector and institutional finance of about Rs 130 crores was utilised for the development of minor irrigation in 1973-74. The Central Groundwater Board is carrying out groundwater survey and exploration at various places in the country with the object of providing scientific guidance for further groundwater development. Pilot projects for water use and management, command area development and desert development are under way. Notable progress has been achieved in groundwater utilisation. Between 1968-69 and 1973-74, the number of dug wells went up from 57 lakhs to 65 lakhs, electrical pumpsets from 11 lakhs to 24 lakhs, private tube-wells from 2.66 lakhs to 8.20 lakhs and public tube-wells from 15,000 to 20,000.

Irrigation and Multi-Purpose Projects

Some of the major irrigation and multi-purpose projects are described briefly in the following paragraphs.

Nagarjunasagar (Andhra Pradesh)

The Nagarjunasagar project comprises the construction of a 1,450-metre long masonry dam with 3,414-metre long earthen flanks on the Krishna river near Nandikonda village, about 144 km from Hyderabad and two canals, one on each side of the river. The 204-km long right bank canal and the 179-km long left bank canal will together irrigate 8.3 lakh hectares. The dam has been completed and work on the canals is under way. An irrigation potential of 4.07 lakh hectares had been created by 1972-73.

Tungabhadra (Andhra Pradesh and Karnataka)

This joint project of Andhra Pradesh and Karnataka, comprising a 2,441-metre long and 49.39-metre high dam on the Tungabhadra river, was completed in 1956. Work on the canals and distribution system has also been largely completed. Out of a total irrigation potential of over 3.3 lakh hectares, potential for 3 lakh hectares has already been created. The total installed power capacity of the project is 99 mw.

Pochambad (Andhra Pradesh)

This project envisages construction of an 812-metre long and 43-metre high masonry dam with earthen flanks across the river Godavari. There will be a 113-km long right bank canal to irrigate an area of 2.3 lakh hectares. Work on the dam and the canal is in progress. An irrigation potential of 23,000 hectares had been created by 1972-73.

Gandak (Bihar and Uttar Pradesh)

Bihar and Uttar Pradesh are the participating states in the project and Nepal, under an agreement signed with India in 1959, also derives irrigation and power benefits from it. The irrigation potential of the project is 15.07 lakh hectares.

The 740-metre long barrage and appurtenant works were completed in 1969-70. The main western canal was opened in December 1972. Partial irrigation has commenced from the main eastern canal. The Nepal eastern canal was inaugurated in 1973. The project is to be completed by 1976-77.

Kosi (Bihar)

This is a multi-purpose project having irrigation, flood control and power benefits. An agreement on the Kosi project was signed between India and Nepal in 1954 and revised in 1966. The irrigation potential of the project is 4.34 lakh hectares. Flood embankments under the project were completed in 1959.

The barrage near Hanumannagar in Nepal was inaugurated in 1965. The eastern Kosi canal system is practically complete except for the distribution system and drainage.

Four more schemes have been sanctioned under the second stage of the project. They are: a 20 mw power house, the western Kosi canal, the Rajpur canal and extension of the flood embankments.

The western Kosi canal project provides for the construction of a 112.65-km long main canal taking off on the right bank of the Kosi barrage at Hanumannagar. The first 35.2 km of the main canal lies in Nepal. The project, after completion, would irrigate 3.14 lakh hectares. The Rajpur canal scheme envisaging construction of a branch canal of the eastern main canal will irrigate an area of 1.13 lakh hectares.

Kakrapara
(Gujarat)

This project is the first phase of the development of the Tapi valley. A 621-metre long and 14-metre high weir near Kakrapara in Surat district was completed in 1953. Most of the earthwork on the canals and distributaries has been completed. An irrigation potential of 2.28 lakh hectares has been created.

Ukai
(Gujarat)

This multi-purpose project consists of a 4,928-metre long and 68.6-metre high dam across Tapi river near the village Ukai. The project will irrigate 1.58 lakh hectares and generate 300 mw of power. It is expected to be commissioned by 1975-76.

Mahi
(Gujarat)

The Mahi project comprises two stages. Stage I consists of a 796-metre long and 20.6-metre high masonry pick-up weir across the Mahi river near Wanakbori village. A 74-km long canal takes off on the right side to irrigate a total area of 1.86 lakh hectares. An irrigation potential of 1.2 lakh hectares had been created by 1972-73.

Stage II envisages construction of a 1,430-metre long and 58-metre high composite dam across the river Mahi near Kadana to irrigate an area of 90,000 hectares as well as additional area under Stage I.

Bhadra
(Karnataka)

This multi-purpose project across the river Bhadra is nearly complete. It will irrigate about one lakh hectares of land and generate 33 mw of power.

Upper Krishna
(Karnataka)

The Upper Krishna project consists of the Narayanpur dam across the Krishna river with a canal taking off from the left bank and the construction of a dam at Almatti. It will irrigate about 4 lakh hectares in the first stage.

Malaprabha
(Karnataka)

This project, a 164-metre long and 43.4-metre high masonry dam, will be constructed across the Malaprabha in Belgaum district. It will irrigate 2.07 lakh hectares of land.

Tawa
(Madhya Pradesh)

The Tawa project envisages the construction of a reservoir across the Tawa river, a tributary of the Narmada, in Hoshangabad district. The 1,630-metre long dam will be earth-*cum*-masonry type. On completion, the project will irrigate about 3.32 lakh hectares.

Chambal
(Madhya Pradesh
and Rajasthan)

This project is being jointly executed by Madhya Pradesh and Rajasthan. In the first stage, the Gandhi Sagar dam and its 115 mw power station, and the Kota barrage were completed. The Rana

Pratap Sagar dam with a power house of 172 mw capacity was constructed in the second stage. The third stage comprises the construction of the Jawahar Sagar dam and a 99 mw power station. With the completion of all the three stages, the project will irrigate 5.66 lakh hectares in both the states and generate 386 mw of power.

Bhima (Maharashtra)

The Bhima project envisages construction of two dams, one on the Pawana river near Phagne in Poona district and the other across the Krishna river near Ujjani in Sholapur district. The Pawana dam will be 1,700 metre long and 43 metre high. The Ujjani dam will be 2,600 metre long and 51.8 metre high. The 160-km long main canal will take off from the left bank. The project will have an irrigation potential of 1.73 lakh hectares.

Jayakwadi (Maharashtra)

This project envisages the construction of a 37-metre high earthen dam with a masonry spillway across the river Godavari in the first stage. A 185-km long canal will take off from the left side to irrigate an area of 1.42 lakh hectares.

Hirakud (Orissa)

The 4,801.2-metre long main Hirakud dam, the world's longest, impounds 810 crore cubic metres of Mahanadi water. The project irrigates 2.54 lakh hectares and its present installed power generation capacity is 270.2 mw.

Mahanadi Delta Scheme (Orissa)

The Mahanadi delta irrigation scheme is being executed to make use of the releases from the Hirakud reservoir. On completion, it will irrigate 6.84 lakh hectares. An irrigation potential of 4.28 lakh hectares had been created by 1972-73.

Bhakra Nangal (Punjab, Haryana and Rajasthan)

A joint venture of Haryana, Punjab and Rajasthan, the Bhakra Nangal project is India's biggest multi-purpose river valley scheme so far completed at a cost of Rs 235 crores. It consists of a straight gravity dam, 518-metre long and 226-metre high, across the Sutlej at Bhakra, the 29-metre high Nangal dam, the 64-km long Nangal hydel channel, two power houses at Bhakra dam, two more power stations on the hydel channel at Ganguwal and Kotla with a total installed capacity of 1,204 mw, about 1,100 km of canals and about 3,400 km of distributaries. The Bhakra dam impounds 7.8 lakh hectare metres of water. The canal system of the project is now irrigating 14.6 lakh hectares.

Beas (Punjab, Haryana and Rajasthan)

The Beas project, another joint venture of Haryana, Punjab and Rajasthan, consists of the Beas-Sutlej Link and the Beas dam at Pong and will cost Rs 471 crores.

The Link is principally a power project with an initial capacity of 660 mw with provision for adding another 330 mw. The 116-metre high earth-*cum*-gravel Pong dam is mainly an irrigation project with a storage capacity of 6.9 lakh hectare metres and an irrigation potential of about 17 lakh hectares in the three states. The dam was completed in 1974. The Pong dam will also have a power house with an installed capacity of 240 mw.

Rajasthan Canal (Rajasthan)

The Rajasthan canal project will provide irrigation facilities to the north-western region of Rajasthan which is part of the Thar desert.

The project, which will use waters from Pong dam, consists of the 215-km long Rajasthan feeder canal (with the first 178 km in

Punjab and Haryana and the remaining 37 km in Rajasthan) and the 467-km long Rajasthan main canal lying entirely in Rajasthan.

The first stage of the project consists of the construction of the feeder canal in full and 195 km of the main canal. The feeder canal has been completed and the main canal up to 132 km.

The second stage covers the construction of the remaining 272 km of the main canal. The project will ultimately irrigate about 11.5 lakh hectares. An area of 2.25 lakh hectares was brought under irrigation in 1973-74.

Parambikulam-Aliyar (Tamil Nadu and Kerala)

This joint venture of Tamil Nadu and Kerala envisages the integrated harnessing of eight rivers, six in the Anamalai Hills and two in the plains. The scheme will irrigate about one lakh hectares and also have an installed power generating capacity of 185 mw.

Ramganga (Uttar Pradesh)

The Ramganga, a major tributary of the Ganga, is being tamed with a 625-metre long and 125.6-metre high earth and rock-fill dam and a 72-metre high saddle dam in the Garhwal district. The project will irrigate 5.75 lakh hectares, have an installed power capacity of 198 mw, supply 200 cusecs of water for the Delhi water supply scheme and reduce the intensity of floods in central and western Uttar Pradesh.

Farakka (West Bengal)

This project was taken up for the preservation and maintenance of Calcutta port and for improving the navigability of the Hooghly. It consists of a barrage across the Ganga at Farakka, a barrage at Jangipur across the Bhagirathi, a 39-km long feeder canal, taking off from the right bank of the Ganga at Farakka and tailing into the Bhagirathi below the Jangipur barrage and a road-*cum*-rail bridge over the Farakka Barrage.

Construction work was started in 1963-64; the two barrages and the road-*cum*-rail bridge have been completed; the feeder canal has also been excavated and is expected to be made operational in 1974. Work on the navigation structures is in progress.

Mayurakshi (West Bengal)

The project comprises the Canada dam, 640-metre long and 47.24-metre high, and irrigates about 2.5 lakh hectares of land. The hydro-electric plant produces four megawatts of power.

Kangsabati (West Bengal)

This project envisages the construction of earthen dams, connected together by intermediate dykes, on the Kangsabati and Kumari rivers. Its canal system would cross the Silabati, Bhairoh Banki and Terafeni rivers, on which three pick-up barrages will be constructed. The project will benefit an area of 4.02 lakh hectares.

Damodar Valley Project (West Bengal and Bihar)

The Damodar valley project was conceived for the unified development of irrigation, flood control and power generation in West Bengal and Bihar. The project is administered by the Damodar Valley Corporation (DVC), which was established in 1948. The DVC has completed multi-purpose dams at Tilaiya, Konar, Maithon and Panchet, hydel power stations at Tilaiya, Maithon and Panchet, a 692-metre long and 11.58-metre high barrage at Durgapur, 2,495 km of irrigation canals and three thermal power houses at Bokaro, Chandrapura and Durgapur. The irrigation potential of the project is about 3.7 lakh hectares and its installed power generating capacity is 1,181 mw, made up of 1,077 mw of thermal and 104 mw of hydel power.

FLOOD CONTROL

The flood-prone area in the country has been assessed at about two crore hectares. To save this area from the ravages of floods, the National Flood Control Programme was launched in 1954. In the first two years, the programme was devoted mainly to intensive investigations, collection of data and execution of some emergent works. Since 1956, flood control and anti-waterlogging measures have been taken up. Flood forecasting and warning centres have been set up in some of the highly flood-prone river basins.

Flood Control Bodies

Flood Control Boards lay down policies at the state level and River Commissions (Floods) co-ordinate implementation at the inter-state level. At the national level, the Central Flood Control Board coordinates the work of the state boards and the River Commissions.

Because of the complexity and magnitude of the flood problem in the Brahmaputra valley and north Bengal rivers, flood control commissions have been set up by the Governments of Assam and West Bengal for implementing a comprehensive plan of flood control. The Government of India have constituted the Brahmaputra Flood Control Board and the North Bengal Flood Control Board to lay down policies, approve schemes and fix priorities. The Ganga Flood Control Board and the Ganga Flood Control Commission have also been constituted by the central government to prepare a comprehensive flood control plan for the Ganga basin and co-ordinate its implementation by the concerned states.

Progress

Since the commencement of the National Flood Control Programme in 1954, 7,500 km of embankments, 11,500 km of drainage channels and 205 town protection schemes had been completed by 31 March 1974. About 4,600 villages had been raised above the high flood level. This programme has cost Rs 350 crores and benefited an area of 71 lakh hectares. Seven flood forecasting centres at Bhubaneswar, Delhi, Gauhati, Jalpaiguri, Lucknow, Patna and Surat have been set up.

In the Fifth Plan, an outlay of Rs 281 crores has been proposed for flood control as compared to Rs 162 crores in the Fourth Plan.

Floods of 1973

During 1973, parts of Gujarat, Madhya Pradesh and Rajasthan experienced unprecedented floods. A cyclone in October the same year caused havoc in the northern coastal districts of Orissa.

The damage caused by floods and cyclone in 1973 was about Rs 500 crores, the second highest during the last 20 years. The highest was in 1971 when the damage was put at Rs 631 crores. The average annual damage due to floods was Rs 146 crores between 1953 and 1973.

ANTI-SEA EROSION

Sea erosion occurs at different places along the 6,083 km stretch of the coast line of India. The problem is, however, of a serious nature in a length of about 320 km of the 550-km coast line in Kerala. Protection measures were started at the end of the First Plan and by the end of the Fourth Plan, a length of 95 km had been protected at a cost of about Rs 17.5 crores. Of this, about Rs 9.5 crores were spent in the Fourth Plan. For the Fifth Plan, a provision of Rs 20 crores has been made.

A Beach Erosion Board was set up by the Government of India in 1966 for reviewing the anti-sea erosion programme in Kerala. The Board was reconstituted in 1971, enlarging its scope of work to cover the sea erosion problem in the entire country.

POWER

The total installed generating capacity in the country in 1947 was 19 lakh kw which rose to 23 lakh kw at the beginning of the First Plan (1951). At the end of the First Plan in 1956 it was 34.2 lakh kw and at the end of the Second Plan in 1961 it was 56.5 lakh kw. By the end of the Third Plan in 1966 the aggregate capacity had risen to 101.7 lakh kw. In 1973-74 it was 185 lakh kw. The Fifth Plan target for installed generating capacity is 350 lakh kw. The per capita consumption was 96.6 kwh in March 1973 as against 38 kwh in 1960-61.

Table 16.2 shows the installed capacity and energy generated at the end of the Second, Third and Fourth Plans.

TABLE 16.2
INSTALLED CAPACITY AND ENERGY GENERATED

	1960-61	1965-66	1973-74
Total installed capacity (lakh kw)	56.5	101.7	185.0
Hydro capacity (lakh kw)	19.2	41.0	69.7
Thermal capacity (lakh kw)	34.0	56.5	111.9
Diesel capacity (lakh kw)	3.5	4.2	3.4
Total energy generated (crore kwh)	2,012	3,682	7,105
By public utilities (crore kwh)	1,693	3,299	6,485
By power units in industrial establishments (crore kwh)	319	383	620

Investment under the Plans

The investment in the power sector at the commencement of the Fourth Plan was Rs 3,629 crores. An additional Rs 2,983 crores were spent during the Fourth Plan bringing the total investment at the end of March 1974 to Rs 6,612 crores. The proposed Fifth Plan outlay on power is Rs 6,190 crores.

Pattern of Power Development

The pattern of power development at present is: Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Meghalaya and Punjab—mainly hydro; Delhi, Bihar, Gujarat and West Bengal—mainly thermal; Andhra Pradesh, Assam, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh—partly thermal and partly hydro. Nuclear power generation has been developed in Maharashtra and Rajasthan and is under development in Tamil Nadu and Uttar Pradesh.

Power development will eventually comprise inter-connected hydro-electric, thermal and nuclear power stations in various regions of the country. It is contemplated that the regional systems will be inter-connected so as to form an all-India grid.

Organisation for Power Development

Till 1947, the generation and distribution of electricity in India was governed by the Indian Electricity Act, 1910. In 1948, the Electricity (Supply) Act was passed under which a Central Electricity Authority for the entire country was set up in 1950. Electricity Boards were also constituted in all the states.

Five regional electricity boards, namely, northern, southern, eastern, western and north-eastern, were formed in 1964 to make optimum use of the fuel and hydro-electric resources in the country and to promote integrated operation among the constituent states. The northern regional electricity board covers Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttar Pradesh. The southern board covers Andhra Pradesh, Karnataka, Kerala, Pondicherry and Tamil Nadu. The eastern board covers Bihar, Orissa, West Bengal and the Damodar Valley Corporation system. The western board covers Gujarat, Madhya

Pradesh, Maharashtra, Dadra and Nagar Haveli and Goa, Daman and Diu. The north-eastern board covers Assam, Manipur, Meghalaya, Nagaland, Tripura, Arunachal Pradesh and Mizoram.

Distribution System

A vast network of about 16.5 lakh circuit km of transmission and distribution lines has been built for carrying power from generating centres to consumer points. Up to March 1974, Rs 1,600 crores were spent on the construction of these lines.

Consumption

The per capita consumption of electricity was 38 kwh during 1960-61. It increased to 61.4 kwh by the end of the Third Plan and to 96.6 kwh in March 1973. Though industry continues to be the largest consumer, accounting for nearly 70 per cent of energy sales, there has also been a significant increase in power consumption in the agricultural sector in recent years. In some states the agricultural loads account for over 30 per cent of power consumption.

NUCLEAR POWER STATIONS

India's first nuclear power station at Tarapur near Bombay has been in operation since October 1969. Two more stations, one at Kota in Rajasthan and the other at Kalpakkam near Madras, are under construction. Both these stations have two units of 210 mw each. The first unit of the Rajasthan station is already in operation. A fourth station has been planned at Narora in Uttar Pradesh.

The Power Projects Engineering Division of the Department of Atomic Energy is responsible for the designing, construction and the commissioning of nuclear power plants in the country. It is presently engaged in building the second unit of the Rajasthan project and the Kalpakkam station. It has also taken up work on the Narora plant.

RURAL ELECTRIFICATION

At the beginning of the First Plan there were only 3,061 electrified villages out of 5.75 lakh villages in the country and 21,008 energised pumpsets. During the First and Second Plan periods (1951-61), the stress was on the electrification of villages for providing employment opportunities to the rural masses, but after the severe drought of 1965-66, the programme was re-oriented towards energisation of irrigation pumpsets for producing more foodgrains. As a result, the number of energised pumpsets rose to 10,88,749 at the beginning of the Fourth Plan while the number of electrified villages was 73,722. During the Fourth Plan, an additional 13,50,235 irrigation pumpsets and tube-wells were energised and 81,064 villages electrified. On 31 March 1974, the number of energised irrigation pumpsets and tube-wells stood at 24,38,984 and that of electrified villages 1,54,786 (27.3 per cent of the total villages in India). The Government of India have also introduced a scheme for providing street lighting facilities to Harijan *bastis* in villages already electrified.

Energisation of irrigation pumpsets and extension of electricity to backward, tribal and Harijan areas would receive priority during the Fifth Plan. With this end in view, the Government of India have introduced a National Programme of Minimum Needs for providing minimum basic facilities to the underdeveloped regions of the country. Under this programme, the aim will be to bring up the percentage of rural population benefited by electricity to at least 30-40 per cent in each state by the end of the Fifth Plan.

Major Power Projects

In March 1974, there were 79 major hydel power stations and 67 major thermal power stations. Some of them are briefly described below.

Machhkund (Andhra Pradesh and Orissa)	This hydro-electric project on Machhkund river is a joint venture of the Governments of Andhra Pradesh and Orissa. It has an installed capacity of 115 mw.
Srisailam (Andhra Pradesh)	The Srisailam hydro-electric project envisages the construction of a stone masonry dam across the Krishna river, about 105.4 km upstream of the Nagarjunasagar dam site. The project's initial capacity will be 440 mw with provision for adding 330 mw at a later stage. The project is under construction.
Kothagudam (Andhra Pradesh)	The first stage of this thermal project with 120 mw capacity was commissioned in 1966-67. The second stage expansion by 120 mw was completed in 1967. Under the third and fourth stages, the capacity is to be expanded by an additional 440 mw.
Lower Sileru (Andhra Pradesh)	The Lower Sileru hydro-electric scheme envisages the construction of a dam across the Sileru river at Donkarayi village. The initial capacity will be 400 mw with provision to add 200 mw at a later stage. Benefits from the project will accrue during the Fifth Plan.
Upper Sileru (Andhra Pradesh)	This power station, which has an installed capacity of 120 mw, is located near Chintapalli. There is provision for adding 120 mw during the Fifth Plan.
Naharkatiya (Assam)	The Naharkatiya thermal project is supplying 69 mw to the Namrup fertilizer factory. The power station utilises natural gas from the Naharkatiya oil field. The project's capacity will be increased by 30 mw during the Fifth Plan period.
Barauni (Bihar)	The Barauni thermal power station presently has an installed capacity of 145 mw. Two units of 110 mw each will be added in the Fifth Plan.
Patratu (Bihar)	The Patratu thermal power station is located in Hazaribagh district. The first stage of the power station, having an installed capacity of 400 mw, has been completed. Another 440 mw will be added in the Fifth Plan.
Badarpur (Delhi)	A central thermal power station capable of generating 300 mw is being installed at Badarpur near Delhi. It will supply bulk power to the northern region, namely, Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttar Pradesh. One unit of 100 mw has already been commissioned and the remaining two will be ready in 1974-75. A capacity of 400 mw will be added later.
Dhuvaran (Gujarat)	This thermal power station was installed at Dhuvaran near the Gulf of Cambay to meet the growing demand for power in Saurashtra and Gujarat areas. The power station has an installed capacity of 530 mw.
Ukai (Gujarat)	The Ukai thermal power project with a capacity of 240 mw will be located adjacent to the Ukai hydro-electric power station. Another 400 mw will be added under an extension scheme. The power station is designed to use low grade coal.
North Gujarat (Gujarat)	This thermal power station on the bank of the river Sabarmati will have a capacity of 240 mw. It is designed to use low grade coal. The project will start giving benefits during the Fifth Plan.

The Jawaharlal Nehru Award for Promotion of Peace and International Understanding was instituted by the Government of India in 1964. The Award for 1971 was received by President Josip Broz Tito of Yugoslavia in January 1974 (above) and the Award for 1972 by the French savant Andre Malraux in November 1974.

Bangladesh leader Sheikh Mujibur Rahman placing a wreath at Rajghat during his visit to New Delhi in May 1974.

President Leopold Senghor of Senegal with the Prime Minister, Smt Indira Gandhi. During his tour of India in May 1974, the Senegalese President was made a Fellow of Sahitya Akademi, the first non-Indian to receive this honour.

Sri Lanka Prime Minister Sirimavo Bandaranaike honoured by the Mayor of Delhi at a civic reception in the capital during her visit to India in January 1974.

Shah of Iran and Shahbanou at Palam airport, New Delhi, on their arrival in October 1974

Vice-President Saddam Hussein of Iraq, who visited India in March 1974, with Shri Swaran Singh, the then Minister of External Affairs

Baira-Siul (*Himachal Pradesh*)	This hydro-electric project will utilise the combined flow of Siul, Baira and Bhaledh rivers and generate 180 mw of power. The project will be completed in the Fifth Plan.
Salal (*Jammu and Kashmir*)	The Salal hydro-electric project consists of an earth core rock-fill dam across the Chenab river near Riasi and a power station. The power station will consist of three generating units of 115 mw each.
Sharavati (*Karnataka*)	The Sharavati hydro-electric project is being developed in three stages. The first stage comprised the building of a dam near Linganamakki village and the capacity was 178.2 mw. In the second stage, the capacity was increased by 534.6 mw. The third stage for an additional capacity of 178.2 mw is under implementation.
Kalinadi (*Karnataka*)	The first phase of the Kalinadi hydro-electric project involves the installation of 270 mw capacity. The power station is expected to be commissioned during 1976-77. The capacity will be increased to 910 mw in the second phase.
Idikki (*Kerala*)	This hydro-electric project, located in the high ranges of the Periyar about 160 km south-east of Ernakulam, will have a power house with 390 mw generating capacity. The first generating unit of 130 mw is likely to be commissioned in 1975-76. Another 390 mw will be added in the second stage.
Sabarigiri (*Kerala*)	This project, comprising two masonry dams and one concrete gravity dam across the Pamba and Kakki rivers in Quilon district, has been completed. Its total installed generating capacity is 300 mw.
Korba (*Madhya Pradesh*)	The total installed capacity of the Korba thermal project is 300 mw. The first stage of 100 mw was completed in 1960 and the second stage with another 200 mw in 1969. A further extension with 120 mw is expected to be commissioned in 1976-77.
Satpura (*Madhya Pradesh and Rajasthan*)	This is a joint thermal project of Rajasthan and Madhya Pradesh. The power station is located in the Patherkheda coal fields in Betul district and has an installed capacity of 312.5 mw. The project was completed in 1969-70.
Koyna (*Maharashtra*)	The first stage of this hydro-electric project across the river Koyna involved the installation of an underground power house with a capacity of 240 mw. In the second stage another 300 mw were added to its capacity. The third stage envisages a further addition of 320 mw. All the generating units of the third stage are slated to be commissioned during the Fifth Plan.
Trombay (*Maharashtra*)	This thermal power project is located at Trombay near Bombay city. This private sector station has a capacity of 337.5 mw.
Nasik (*Maharashtra*)	The Nasik power station has a total installed capacity of 280 mw. The project was commissioned in 1970-71.
Koradi (*Maharashtra*)	The scheme provides for the setting up of a thermal power station with a capacity of 480 mw at a site close to village Koradi near Nagpur. One generating unit of 120 mw has been commissioned while the remaining units are under construction. An expansion programme will add 600 mw.

Loktak *(Manipur)*	This hydro-electric project envisages the construction of a 10.7-metre high and 68.6-metre long barrage across the river Manipur at Ithai and a generating station with 70 mw. The project is expected to be commissioned in 1976-77. An additional 35 mw capacity will be provided later.
Hirakud *(Orissa)*	The Hirakud hydro-electric project was executed in two stages. Under the first stage it generated 123 mw and in the second 147 mw. All the generating units were commissioned by 1963-64.
Balimela *(Orissa and Andhra Pradesh)*	The Balimela dam scheme is a joint project of the Governments of Andhra Pradesh and Orissa. The dam will provide a regulated discharge of 4,200 cusecs for power generation. Under the Balimela hydro-electric project of Orissa Government, the state's share of 2,100 cusecs will be utilised to generate 260 mw.
Talcher *(Orissa)*	The project comprises a thermal power station with 250 mw at Talcher, where abundant reserves of low grade coal are available. All the generating sets have been commissioned. An additional 220 mw capacity will be provided under the second stage during the Fifth Plan.
Guru Nanak Power Plant *(Punjab)*	The Guru Nanak thermal power station is being constructed near Bhatinda. It will have a capacity of 220 mw. There is provision to expand the capacity by another 220 mw.
Ennore *(Tamil Nadu)*	The scheme at Ennore near Madras has a capacity of 340 mw of thermal power. Under the second stage, a 110 mw capacity will be added. It is expected to be commissioned in 1975-76.
Mettur *(Tamil Nadu)*	The Mettur tunnel scheme has a capacity to generate 200 mw by utilising the discharge of 20,000 cusecs from the Mettur reservoir during the irrigation period.
Neyveli *(Tamil Nadu)*	The Neyveli thermal station has a total installed capacity of 600 mw. The project was completed in three stages. The first unit of 50 mw under the first stage was commissioned in 1962 and the last unit of 100 mw under the third stage in 1970.
Kundah *Tamil Nadu)*	This project involved the development of the Kundah basin in the Nilgiri Hills in four stages. The first two stages with an installed capacity of 180 mw were completed in 1960-61 and the third, with an installed capacity of 245 mw, was completed in 1965-66. The fourth stage of 110 mw is expected to be completed during the Fifth Plan.
Harduaganj *(Uttar Pradesh)*	The Harduaganj thermal station has a capacity of 320 mw built up in four stages. The fifth and sixth stages with a total additional capacity of 220 mw are expected to yield benefits during the Fifth Plan.
Rihand *(Uttar Pradesh)*	The Rihand project consists of a concrete gravity dam across the river Rihand near the village Pipri in Mirzapur district. The power house at the foot of the dam has a total generating capacity of 300 mw.
Yamuna *(Uttar Pradesh)*	The scheme is designed to harness the river Yamuna and its tributary Tons in two stages. Under the first stage a capacity of 84.5 mw has been created. Under the second stage the capacity will be increased by 360 mw.

Panki (Uttar Pradesh)

This thermal power station has an installed capacity of 64 mw. The extension scheme envisages installation of a capacity of 220 mw. The first unit of 110 mw is expected to be commissioned in 1975-76.

Maneri-Bhali (Uttar Pradesh)

The Maneri-Bhali hydro-electric project is designed to harness the waters of the Ganga and will be completed in two stages. The first stage will have an installed capacity of 105 mw and the second stage will increase it by 156 mw. The first stage will be completed in 1977-78.

Obra (Uttar Pradesh)

A thermal power station at Obra in Mirzapur district was commissioned in 1970 with a capacity of 250 mw. Under the first extension, a capacity of 300 mw is being added. The second extension is designed to add 600 mw and the third a further 400 mw. The station is designed to use low grade coal.

Bandel (West Bengal)

The Bandel thermal power station, having an installed capacity of 330 mw, is located near Calcutta. Another 200 mw will be added under an extension scheme.

Santaldih (West Bengal)

This thermal scheme provides for a power house with a capacity of 480 mw at Santaldih in Purulia district utilising the middlings and rejects available from the adjoining coal washeries. The first unit of 120 mw was commissioned in 1973. The remaining units are under construction.

CENTRAL ORGANISATIONS

Three central organisations, which are responsible for research in the fields of irrigation and power, preparation of irrigation and power schemes and execution of these schemes, are described below.

The Central Board of Irrigation and Power, constituted in 1927, initiates fundamental research in the fields of irrigation and power and co-ordinates the work of 41 research stations established in different parts of the country.

The Central Water and Power Commission is responsible for initiating and co-ordinating, in consultation with state governments, schemes of flood control, irrigation, navigation and hydro-power generation. It is also responsible for thermal power development and transmission of electrical energy throughout the country.

The National Projects Construction Corporation Limited, set up as a company in 1957, is owned by the central government and the state governments of Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal and the union territory of Chandigarh. The Corporation undertakes the execution of river valley projects and allied construction works. It has so far completed works valued at about Rs 88 crores.

Water and Power Consultancy Services

Another organisation known as the Water and Power Development Consultancy Services (India) Ltd., was registered as a company in 1969 with a view to making India's expertise in the fields of irrigation and power available to developing countries. The organisations of the Government of India which are the constituents of this company are: the Central Water and Power Commission, Geological Survey of India, India Meteorological Department and Survey of India.

The company provides, among other services, engineering and consultancy services for development of water resources, irrigation and drainage, electrical power, flood control and water supply projects, pre-investment surveys and complete design.

The works completed by the company include (i) field investigations and preparation of the feasibility report for the Ban Mak Nao Project in Laos, (ii) preparation of project reports for a number of micro-hydel schemes in Afghanistan, and (iii) preparation of a report on water resource surveys of Singdia region in Tanzania. It has also provided experts on flood control to the Asian Development Bank for the Wampur river flood control project in Indonesia and three experts for the Uda Walawe project in Sri Lanka.

INTERNATIONAL AGREEMENTS

Indus Commission

India and Pakistan signed the Indus Water Treaty on 19 September 1960 fixing and delimiting the rights and obligations of the two countries with regard to the use of the waters of the Indus river system. It came into force with retrospective effect from 1 April 1960. As envisaged in the treaty, a permanent Indus Commission, representing both the governments, has been set up to establish co-operative arrangements for the implementation of the treaty.

Indo-Bangladesh Rivers Commission

An Indo-Bangladesh Joint Rivers Commission was established in 1972 to carry out surveys of the river systems shared by them and to formulate flood control projects. The Commission has taken up short and medium-term schemes of mutual benefit.

Indo-Bangladesh Power Board

The main functions of the Indo-Bangladesh Power Board are to maintain liaison between India and Bangladesh for maximising the benefits from the power systems and energy resources of both the countries and to formulate and implement proposals with the approval of the two governments.

ASSISTANCE TO FOREIGN COUNTRIES

India is assisting a number of developing countries to set up irrigation and power projects.

India is supplying to Afghanistan generators, steel, penstocks, pipes and electrical equipment for the construction of the Chardeh Ghorband irrigation-*cum*-micro-hydel project, comprising three units of 100 kw each. India is also to assist in setting up three more micro-hydel projects at Bamiyan, Faizabad and Khulm.

Technical assistance has also been extended to Sri Lanka for the preparation of the designs and specifications for the Kotmale project. The Governments of India and Sri Lanka have agreed to take up a feasibility study for linking the power grids of both the countries to their mutual benefit. Necessary study and exchange of data are in progress.

India, in association with various UN agencies and other countries, is participating in the development of the lower Mekong basin. Equipment in the form of gates and hoists has been supplied for the construction of the Prek Thnot project in Cambodia. Equipment was also supplied for the setting up of the sedimentation testing laboratories at Pakse and Vientiane in Laos.

Indian experts have been sent to Kenya for assisting that country in the planning and execution of flood control projects.

India is also to assist Nepal in the setting up of a design and construction organisation for the utilisation of water and power resources in that country.

17 INDUSTRY

A century of industrial development pales into insignificance when compared with the rapid industrial growth witnessed during the first two decades of planned development. The increase in industrial production, as indicated by the general index of industrial production, has been about 240 per cent since 1951. While almost all groups of industries contributed to this increase, the growth has been particularly marked in the newer and more complex industries, such as, petroleum products, aluminium manufacture, metal products, electrical and non-electrical machinery.

Side by side, the different Five Year Plan periods saw the expansion and diversification of the industrial structure with the establishment of new units in the existing fields as well as the setting up of new enterprises. As a result, the number of industrial units has increased significantly. In 1951, there were only two major units producing iron and steel. There are now six giant steel plants and three more will be ready over the next few years. The steel produced by these plants has provided the basis for achieving self-sufficiency in making a number of engineering goods from a pin to giant machinery. In the field of new industries, the dyestuff industry, which practically did not exist in 1951, has progressed to such an extent that the import of most of the dyes has been stopped. The drug industry is also developing fast. The textile industry is no longer confined to the cotton and jute textiles. Today, there are quite a few units producing different types of synthetic fibres. The machine building industry, too, has made rapid strides. The industry can supply virtually the entire requirement of power generating equipment. Self-sufficiency has been reached with regard to sugar and cement machinery.

An important feature of industrial growth in the country after Independence has been the rapid expansion of the public sector. In 1951, there were only five non-departmental public undertakings with an investment of Rs 29 crores. On 31 March 1973, they numbered 113 with an investment of Rs 5,571 crores. These enterprises produce diverse products, such as, steel, heavy and light engineering products, fertilizers, basic chemicals, drugs, minerals, petroleum products, locomotives, aircraft and ships.

Annual Survey

The provisional summary results of the Annual Survey of Industries for 1970 showed that there were 13,597 (13,101)[1] registered factories, employing 50 or more workers with the aid of power and 100 or more workers without the aid of power, showing an increase of 3.78 per cent over 1969. Of these, the factories which reported data numbered 13,279 (12,754) representing an increase of 4.11 per cent over 1969. With a productive capital of Rs 11,115.0 (9,933.1) crores, these factories provided employment to 42.5 (41.5) lakh persons distributing an annual wage bill of Rs 1,516.6 (1,341.0) crores. This represented an increase of 11.89 per cent in the productive capital, 2.45 per cent in employment and 13.09 per cent in the wage bill. With an input of Rs 8,521.2 (7,523.6) crores, the factories generated an output of Rs 11,399.5 (9,991.2) crores. As a result, the net value added to the national economy was Rs 2,878.3 (2,467.6) crores, an increase of 13.26 per cent on the input, 14.09 per cent on the output and 16.64 per cent in value.

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[1] Figures in brackets are for 1969 and are given for comparison.

The most industrialised states, according to the Survey, were Maharashtra, West Bengal, Tamil Nadu, Gujarat, Uttar Pradesh, Bihar, Andhra Pradesh, Karnataka and Madhya Pradesh. The value of output of each of these nine states was more than 4 per cent of the total value of output. They accounted for 78.86 per cent of the reporting factories, 81.26 per cent of the productive capital, 83.54 per cent of the total employment, 84.76 per cent of the total output and 83.62 per cent of the value added. Three states, namely, Kerala, Haryana and Punjab had a share of 2.91 per cent, 2.29 per cent and 2.23 per cent respectively of the output. They also accounted for 10.23 per cent of the total reporting factories, 7.33 per cent of the total productive capital, 7.86 per cent of the total employment, 7.23 per cent of the total output and 6.62 per cent of the total value added. Twelve states and union territories, namely, Assam, Himachal Pradesh, Jammu and Kashmir, Manipur, Orissa, Rajasthan, Tripura, Andaman and Nicobar Islands, Chandigarh, Delhi, Goa, Daman and Diu and Pondicherry had 10.91 per cent of the total factories with 11.41 per cent of the productive capital. They provided employment to 8.60 per cent of the total employment, generated 8.01 per cent of the total output and contributed to the national economy to the extent of 9.76 per cent of the total value added.

With regard to industry-wise position, 22 industry groups taken together accounted for 77.04 per cent of the reporting factories, 94.81 per cent of productive capital, 88.35 per cent of total employment, 91.10 per cent of the output and 91.11 per cent of the value added by manufacture. Among the industry groups, '231'—spinning, weaving and finishing of textiles—was a major one. The share of this industry group alone to the value added was 18.87 per cent and it accounted for 10.29 per cent of the reporting factories, 7.08 per cent of the productive capital, 26.59 per cent of the employment and 18.19 per cent of the value of output.

POLICY AND PROGRESS

INDUSTRIAL POLICY

Independent India's industrial policy was first announced in 1948. This envisaged a mixed economy with an overall responsibility of the government for planned development of industries and their regulation in the national interest. While it reiterated the right of the State to acquire an industrial undertaking in public interest, it reserved an appropriate sphere for private enterprise. The policy was revised in 1956 following Parliament's acceptance of a socialist pattern of society as the national objective in 1954. Under the revised policy, industries specified in Schedule A (enumerated below) are the exclusive responsibility of the State, while industries in Schedule B (also enumerated below) are to be progressively State-owned, but private enterprise is expected to supplement the efforts of the State in these fields. Future development of industries falling outside the two Schedules will, in general, be left to private enterprise. Notwithstanding this demarcation, it will always be open to the State to undertake any type of industrial production.

Schedule A Industries: Arms and ammunition and allied items of defence equipment; atomic energy; iron and steel; heavy castings and forgings of iron and steel; heavy plant and machinery required for iron and steel production, for mining, for machine tool manufacture and for such other basic industries as may be specified by the central government; heavy electrical plant including large hydraulic and steam turbines; coal and lignite; mineral oils; mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamonds; mining and processing of copper, lead, zinc, molybdenum and wolfram; minerals specified in the Schedule to the Atomic Energy (Control of Production and Use) Order, 1953; aircraft; air transport; railway transport; ship-building; telephones and telephone cables; telegraph and wireless apparatus (excluding radio receiving sets); generation and distribution of electricity.

Schedule B Industries: All other minerals except 'minor minerals' as defined in Section 3 of the Minerals Concession Rules, 1949; aluminium and other non-ferrous metals not included in Schedule A; machine tools; ferro-alloys and tool steels; basic and intermediate products required by chemical industries, such as, the manufacture of drugs, dyestuffs and plastics; antibiotics and other essential drugs; fertilizers; synthetic rubber; carbonisation of coal; chemical pulp; road transport and sea transport.

Regulation of Industry

In line with the policy first announced in 1948, the Constitution was amended and the Industries (Development and Regulation) Act, 1951 was enacted. Under this, industries listed in the first Schedule to the Act are required to be licensed by the government. The Act also authorises the government to examine the working of any such industrial undertaking and to issue directions which it considers necessary. If the undertaking continues to be mismanaged, the government are empowered to take over its management or control. The Act empowers the government to secure equitable distribution and fair prices of any article produced by the scheduled industries.

Industrial Licensing

An important objective of the industrial policy is to prevent the emergence of private monopolies and the concentration of economic power in the hands of a small number of individuals. This problem was studied by the Mahalanobis Committee on Distribution of Income and Levels of Living (1960), the Monopolies Enquiry Commission (1964), and the Industrial Licensing Policy Inquiry Committee (ILPIC) (1967). The Administrative Reforms Commission and the Planning Commission also made various recommendations. As a result, the Monopolies and Restrictive Trade Practices (MRTP) Act was passed in 1969 and under the Act the Monopoly and Restrictive Trade Practices Commission was appointed in 1970. The Industrial Licensing Policy was modified in 1970 and again in 1973.

The latest modifications reaffirmed that the Industrial Policy Resolution of 1956 will continue to govern government's policies in the industrial sphere. All industries of basic and strategic importance, or in the nature of public utility services will continue to be in the public sector. Industries which are essential and require investment on a scale, which only the State in the present circumstances could provide, will also be in the public sector. Some other salient features of the new changes are:

A larger industrial house for licensing purposes will mean a house having assets, along with assets of inter-connected undertakings (as defined in the MRTP Act, 1969), of not less than Rs 20 crores as against assets exceeding Rs 35 crores provided by the ILPIC.

The list of industries, which are open for larger industrial houses and foreign concerns and subsidiaries and branches of foreign companies along with other applicants, has been consolidated. They cannot, however, participate in the production of any item reserved for the public sector as mentioned in Schedule A (p 214) or the small-scale sector. The consolidated list covers 19 groups, *viz.*, 1. metallurgical industries: (i) ferro-alloys, (ii) steel castings and forgings, (iii) special steels, and (iv) non-ferrous metals and their alloys; 2. boilers and steam generating plants; 3. prime movers (other than electrical generators): (i) industrial turbines, and (ii) internal combustion engines; 4. electrical equipment: (i) equipment for transmission and distribution of electricity, (ii) electrical motors, (iii) electrical furnaces, (iv) X-ray equipment, and (v) electronic components and equipment; 5. transportation: (i) mechanised sailing vessels up to 1,000 dwt, (ii) ship ancillaries, and (iii) commercial vehicles; 6. industrial machinery; 7. machine tools; 8. agricultural machinery, tractors and power tillers; 9. earthmoving machinery; 10. industrial instruments, indicating, recording and regulating devices for pressure, temperature, rate of flow, weights levels and the like; 11. scientific instruments; 12. nitrogenous and phosphatic fertilizers falling under inorganic fertilizers under '18 Fertilizers' in the First Schedule to the ID & R Act, 1951; 13. chemicals (other than fertilizers): (i) inorganic heavy chemicals, (ii) organic heavy chemicals, (iii) fine chemicals, including photographic chemicals, (iv) synthetic resins and plastics, (v) synthetic rubbers, (vi) man-made fibres, (vii) industrial explosives, (viii) insecticides, fungicides, weedicides and the like, (ix) synthetic detergents and (x) miscellaneous chemicals (for industrial use only); 14. drugs and pharmaceuticals; 15. paper and pulp including paper products; 16. automobile tyres and tubes; 17. plate glass: 18. ceramics: (i) refractories, and (ii) furnace lining bricks—acidic, basic and neutral; and 19. cement products: (i) portland cement and (ii) asbestos cement.

The larger industrial houses will ordinarily be excluded from the industries not included in the 19 groups except where production is predominantly for exports. The minimum export obligation in such cases will be at least 60 per cent of the additional production (75 per cent in the case of industries normally reserved for small-scale units). The investment of foreign concerns will continue to be subjected to the 'guidelines on the dilution of foreign equity' and will be examined with special reference to technological aspects, export possibilities and the overall effect on the balance of payments.

Competent small and medium entrepreneurs will be preferred *vis-a-vis* the larger industrial houses and foreign concerns in the setting up of new capacity. Licensing policy will seek to promote production of ancillaries in the medium or small-scale sector. Co-operatives and small and medium entrepreneurs will be encouraged to participate in the production of mass consumption goods. Other investors will be allowed to participate only if there are special factors such as sizeable economies of scale resulting in reduced prices, technological improvements, large investment requirements, substantial export possibilities or as part of modernisation. The co-operative sector will also get preference in the licensing of industries which process agricultural raw materials, such as, sugarcane, jute, cotton or produce agricultural inputs, such as, fertilizers.

The policy of reservation for the small-scale sector (involving investment in machinery and equipment up to Rs 7.5 lakhs) and ancillary industries (involving investment in plant and equipment up to Rs 10 lakhs) will be continued. The government will extend the area of reservation for this sector keeping in view its performance and potentialities.

The exemption limit for licensing provision, which now applies to substantial expansions and new undertakings up to Rs 1 crore by way of fixed assets in land, buildings and machinery, will be continued. This exemption will not apply to existing licensed or registered undertakings having fixed assets exceeding Rs 5 crores, larger industrial houses, dominant undertakings and to foreign companies including their branches and subsidiaries.

Each proposal for establishing a joint sector project will be judged and decided on its merits in the light of government's social and economic objectives. The undertakings covered by the MRTP Act will not be allowed to use the device of joint sector projects for entry in industries from which they are otherwise precluded. The government will also ensure for themselves an effective role in guiding policies, management and operation of joint sector companies.

STANDARDISATION

National standards for commodities, materials and processes are laid down by the Indian Standards Institution (ISI) which was set up in New Delhi in 1947. It also promotes standardisation and quality control in industrial technology and imparts training in standardisation techniques to Indian and foreign company executives and technical personnel. So far, the ISI has formulated more than 7,500 standards.

The Institution also operates the ISI Certification Mark Scheme under which licenses are issued to manufacturers for applying the Certification Mark on their products as a third party guarantee about their quality. About 3,500 licences have been issued for the use of Certification Mark on products, the annual production value of which exceeds Rs 480 crores.

INDUSTRIAL FINANCE

Institutional finance for industries is provided by several term-lending institutions both at the all-India level as well as the state level. The institutions which supply industrial finance are described below.

IFCI

The Industrial Finance Corporation of India (IFCI), which was established under an Act of Parliament in 1948 and is now a subsidiary of the Industrial Development Bank of India, provides long-term loan assistance to industrial concerns, both in the public and private sectors. The Corporation also provides training in modern management techniques to its clients. From its inception and up to 31 March 1974, the total net financial assistance sanctioned and disbursed by IFCI amounted to Rs 468.20 crores and Rs 393.75 crores respectively.

SFCs

Eighteen State Financial Corporations, including the Tamil Nadu Industrial and Investment Corporation, supply industrial finance to medium and small-scale sectors. In 1973-74, they sanctioned loans totalling Rs 99.7 crores as compared to Rs 77.8 crores in 1972-73, an increase of 28.1 per cent. The outstanding loans on 31 March 1974 totalled Rs 215.2 crores, *i.e.*, 16.8 per cent higher than a year ago.

The State Financial Corporations Act was amended in 1972 to enable the SFCs to raise a special class of share capital to be subscribed by the state governments and the Reserve Bank of India. This capital is to be used only for such purposes as the Reserve Bank, in consultation with state governments, may specify from time to time.

The International Development Association (IDA) has sanctioned a credit of $2.5 crores to India for meeting the foreign exchange requirements of small and medium projects financed by SFCs and refinanced by the Industrial Development Bank of India which will enable SFCs to assist medium and small-scale units for import of plant and machinery. Up to 31 March 1974, the SFCs had sanctioned 129 applications for Rs 7.39 crores under this line of credit.

IDBI

The Industrial Development Bank of India (IDBI), which is a subsidiary of the Reserve Bank of India, was set up in 1964 to co-ordinate the activities of other financial institutions (including banks), supplement their resources to plan and promote industries of key significance to the industrial structure and to adopt and enforce a system of priorities in promoting future industrial growth. During its existence it has established itself as an apex development bank. In 1970, it initiated, with the assistance of other term-lending institutions and the Reserve Bank, surveys in backward areas to identify specific project ideas in the light of the resources, demand conditions and infrastructure facilities over a period of 5 to 10 years. These surveys have been completed in all backward states and union territories. By 31 December 1973, 336 project ideas had been identified in these areas and recommended for implementation. The Bank had sanctioned up to 31 March 1974 financial assistance (excluding guarantees) totalling Rs 909.5 crores, of which Rs 672.0 crores had been disbursed.

ICICI

The Industrial Credit and Investment Corporation of India (ICICI) was set up in 1955. During 1973, it provided financial assistance of Rs 69.02 crores (including foreign currencies) as against Rs 61.45 crores in 1972. The amount disbursed was also higher at Rs 41.61 crores as against Rs 37.49 crores in the preceding year. From its inception and up to 31 December 1973, the total amount sanctioned (net) and disbursed was Rs 445.38 crores and Rs 308.80 crores respectively.

IRCI

The Industrial Reconstruction Corporation of India (IRCI), which was set up in 1971, is mainly concerned with the rehabilitation and reconstruction of industrial units which have closed down or are facing closure by reconstruction of share capital, strengthening of management, provision of finance on soft terms, improvement in technology and labour relations. Up to March 1974, the IRCI had sanctioned loan assistance on soft terms and guarantee facilities to 74 units for Rs 20.19 crores.

NIDC

The National Industrial Development Corporation (NIDC) was set up in 1954 for the rehabilitation and modernisation of cotton textile and jute industries and for the expansion of machine tool units. It is now providing engineering consultancy services both at home and abroad. During 1972-73, it carried out over 90 assignments in the country. The Corporation's consultancy services are being increasingly utilised by developing countries like Iran, Kenya. Libya, Malaysia, Nepal, Tanzania, the Gulf States and also by a developed country, Italy. The United Nations Industrial Development Organisation and some private parties in UK have also given assignmens to NIDC. Its foreign exchange earnings totalled Rs 48.05 lakhs till 31 March 1973.

UTI

The Unit Trust of India (UTI) was established in 1964 as a public sector investment institution for mobilising the savings of the community and for providing to the investors, particularly small and middle income groups, a medium of investment in industrial securities. For this purpose, UTI has formulated two schemes for selling units, namely, Unit Scheme 1964 and Unit Scheme 1971. It has also framed specific savings plans to cater to the needs of individual savers, *viz*,. Reinvestment Plan 1966, Voluntary Savings Plan 1969, Children's Gift Plan 1970 and Unit-Linked Insurance Plan 1971. The net sales of units on 31 March 1974 amounted to Rs 146 crores, the number of unit holder accounts being 5,34,000. The dividend distribution which was 6.1 per cent in 1964-65 was gradually raised to 8.5 per cent in 1972-73 under the Unit Scheme 1964.

FOREIGN CAPITAL

To supplement the capital resources and know-how for rapid industrial development, the Government of India allows foreign assistance in desirable cases. The policy in regard to foreign capital is governed by the Industrial Policy Resolution of 1948 and the Prime Minister's statement in the Constituent Assembly in 1949, which laid down that:

(i) the participation of foreign capital and enterprise should be carefully regulated in the national interest by ensuring that major interest in ownership and effective control should, save in exceptional cases, always be in Indian hands and that the training of suitable Indian personnel for the purpose of eventually replacing foreign experts will be insisted upon in all such cases;

(ii) there will be no discrimination between foreign and Indian undertakings in the application of the general industrial policy;

(iii) reasonable facilities will be given for the remittance of profits and repatriation of capital conistent with the foreign exchange position of the country; and

(iv) in the event of nationalisation, fair and equitable compensation will be paid.

To identify the fields in which foreign collaboration is required and to streamline the procedure for acceptance or otherwise of foreign collaboration proposals, a Foreign Investment Board is in existence. Broad guidelines regarding the fields and terms on which foreign collaboration might be permitted have been indicated.

DEVELOPMENT OF INDUSTRIES

The history of organised industry in India may be traced to 1854 when the real beginnings of the cotton mill industry were made in Bombay with predominantly Indian capital and enterprise. The foundations of jute industry were laid near Calcutta in 1855, mostly with foreign capital and enterprise. Coal-mining also progressed about this time. These were the only major industries which had developed substantially before the First World War. During and after World Wars I and II, a somewhat more liberal policy was adopted by the authorities, such as, a discriminating protection policy, which gave impetus to industrial development. Several industries rapidly expanded and a number of new industries came up, such as, steel, sugar, cement, glass, industrial chemicals, soap, vanaspati and some branches of engineering. But their production was neither adequate in quantity for meeting even the low level of internal demand nor diversified in character.

Progress

First and Second Plans

During the First and Second Five Year Plans (1951-52 to 1960-61), the growth and diversification of industry were remarkable, particularly in the Second Plan. Three new steel plants, each of 10 lakh ingot tonnes capacity, were set up in the public sector and the capacity of the two existing steel works in the private sector was doubled. Foundations were laid of heavy electrical and heavy machine tools industries and heavy machine building and other branches of heavy engineering industries. The production of machinery for cement and paper industries was started for the first time. In chemical industries the advance was on a wide front, leading not only to large units and greatly increased output of basic chemicals, such as, nitrogenous fertilizers, caustic soda, soda ash and sulphuric acid, but also in the manufacture of a number of new products like urea, ammonium phosphate, penicillin, synthetic fibres, industrial explosives, polyethylene and dyestuffs. The output of many other industries like bicycles, sewing machines, telephone and electrical goods increased substantially. New skills were learnt by the workers and a large and growing class of industrial managers came into being. Organised industrial production practically doubled in these ten years; the index of industrial production rose from 100 in 1950-51 to 194 in 1960-61. New industrial townships and factories sprang up in the environs of the main cities of the country.

At the same time there were some large shortfalls. The combined output of the new steel plants was only 6 lakh tons in 1960-61 as against the target of 20 lakh tons. The expansion of the government-owned Sindri Fertilizer Factory and the private sector ammonium chloride project at Varanasi were completed 12 to 18 months after the scheduled dates. The three fertilizer plants in the public sector at Nangal, Neyveli and Rourkela and the Heavy Electricals Project at Bhopal were delayed, mainly due to foreign exchange difficulties. The heavy machinery, the mining machinery and the foundry forge projects, which should have been far advanced, began to yield some output only at the end of the Third Plan.

Targets of capacity and production in most cases were, however, fulfilled, and in some cases, for example, power-driven pumps, diesel engines, electric motors, electric fans, radio receivers and sugar, the targets were exceeded.

Dispersal of industry was effected by giving preference in the location of public sector projects to relatively backward areas whenever possible. Similarly, in the licensing of private sector projects the claims of under-developed regions were kept in view.

Third Plan and Annual Plans

Industrial progress was markedly uneven during the eight years which comprised the Third Plan (1961-66) and the subsequent Annual Plans (1966-69). In the first four years, conditions were relatively favourable for industrial investment and growth and the progress achieved was significant Thereafter, for nearly three years the economy was subjected to considerable stress and strain and the growth rate in industrial production declined, first slowly and then steeply, till it reached virtual stagnation. But in the last year of this period, 1968-69, there were distinct signs of recovery.

These vicissitudes may be illustrated with reference to the index of industrial production. The increase in industrial output (1960 as base) was 8.2 per cent in 1961-62, 9.6 per cent in 1962-63, 9.2 per cent in 1963-64 and 8.8 per cent in 1964-65. Thereafter, there was a sharp deterioration in the rate of growth of output. It fell to 5.3 per cent in 1965-66, 0.2 per cent in 1966-67 and 0.5 per cent in 1967-68 The decline in these years was mainly due to low rates of growth in textiles and food industries, on the one hand, and metals and machinery industries, on the other. Industrial production, however, showed a sharp recovery during 1968-69 with a rise of 6.2 per cent.

The decline in industrial growth after 1964-65 was attributable to several factors, of which the most important were the series of dislocations caused by the hostilities in 1965 and two successive droughts in 1965-66 and 1966-67. Many industries were severely affected by the shortage of raw materials and components arising from the pause in external aid in 1965.

Among industries in which Third Plan production targets were fully or nearly realised by 1965-66, were aluminium, automobiles, electric transformers, cotton textile machinery, machine tools, sugar, jute textiles, power-driven pumps, diesel engines and petroleum products. On the other hand, in some of the important industries like steel and fertilizers, there was a considerable shortfall in production. In subsequent years, there was a step-up in production in certain industries such as fertilizers, heavy chemicals, cement and petroleum products. All the same the Third Plan targets for steel and fertilizers were not realised even by 1968-69, the output of finished steel being 47 lakh tonnes in 1968-69 against the Third Plan target of 68 lakh tonnes and of nitrogenous fertilizers being 5,41,000 tonnes against an expected 8,00,000 tonnes.

In spite of this uneven performance, significant achievements contributing towards the realisation of diversified industrial structure were made during this period. Substantial capacity was created in many new lines. A fairly sound base for future growth was laid. Several of the large projects launched at the commencement of the Third Plan were completed and brought into production. In particular, in the field of heavy engineering and machine-building industries, the commencement of production of the different units in the Heavy Engineering Corporation, Mining and Allied Machinery Corporation and of heavy electrical projects made it possible, largely through indigenous efforts, the expansion of further capacity in vital sectors like iron and steel, mining and power generation. In the field of rail and road transport and communications, virtual self-sufficiency for the supply of equipment and rolling stock was achieved. Machinery manufacturing capacity for a variety of traditional industries like textiles, sugar and cement was developed and design and engineering capabilities were expanded. Process technology was either acquired or developed to enable the planning, designing and construction of industrial projects with maximum indigenous efforts in fields like fertilizers, rayon and dissolving pulp. There was an appreciable increase in the production capacity of steel and non-ferrous metals. Progress was made in the expansion of capacity in petroleum, fertilizer and petro-chemical industries.

Fourth Plan

In the Fourth Plan, the performance of the industrial sector fell short of expectations both in terms of production and investment. Industrial production, which was expected to achieve an annual growth rate of 8 to 10 per cent during the Plan period on the basis of the proposed investment—Rs 3,050 crores in the public sector and Rs 2,250 crores in the private sector—was : 7.3 per cent (1969-70); 3.1 per cent (1970-71); 3.3 per cent (1971-72); and 5.3 per cent (1972-73). In 1973-74 (April 1973 to January 1974), industrial production, according to the preliminary data, was almost static. The investment on industrial development in the public sector was estimated to be about Rs 2,700 crores as against the provision of Rs 3,050 crores. While the pace of investment in some of the sectors like iron ore, petroleum and petro-chemicals was generally satisfactory, this was not so in respect of other sectors like iron and steel, non-ferrous metals, fertilizers and coal. In fact, the shortfall in overall investment was much larger, if account was taken of the escalation in project costs.

A number of factors were responsible for the unsatisfactory growth in industrial production. While in some of the critical industries like steel and fertilizers, production remained substantially below the installed capacity on account of operational problems in different units, other agro-based industries like sugar and textiles showed an erratic trend. The inadequate pace of investment resulted in a reduced demand for industrial machinery, adversely affecting the level of output of the capital goods industries. Production in other engineering industries was also hit by the shortage of steel and non-ferrous metals.

On the positive side, there was a substantial production increase in several industries like alloys and special steels, aluminium, automobile tyres, petroleum refinery products, electronics, machine tools, tractors and heavy electrical equipment. The production turnover in the public sector undertakings also showed an encouraging rise towards the closing years of the Plan. The output in many large public sector undertakings, however, was not reflected in the Index of Industrial Production as many of the these units commenced production only after the Index year, *i.e.*, 1960. Apart from this, the industrial base was further expanded and a greater degree of sophistication and self-reliance achieved. Several of the projects, such as, steel, non-ferrous metals, fertilizers, tractors, plastics and rubber taken up during the Fourth Plan are expected to add significantly to capacity and production during the Fifth Plan.

PUBLIC SECTOR

Over the last two decades, the public sector has emerged as a major factor in the country's economic growth. The public sector in industry comprises: (i) public utilities like the railways, road transport services, ports, posts and telegraphs, power and irrigation projects; (ii) departmental undertakings of the central and state governments, such as, the Chittaranjan Locomotive Works, the Integral Coach Factory at Perambur and various defence production establishments; and (iii) number of other industrial undertakings which derive their finances almost wholly from the central government in the form of equity capital and loans. While (i) and (ii) have been dealt with at length in other chapters of this book and details of the working of (iii) are given later in this chapter, some salient features of this category are given below.

On 31 March 1973, there were 113 central government public undertakings, with a total investment of Rs 5,571 crores. Of these, 106 were enterprises producing and selling goods and enterprises rendering services and seven were under construction. The number of such units and the expansion of investment in them since the commencement of the First Five Year Plan is shown in Table 17.1.

Investment

A major portion of the investment in central government public undertakings in 1972-73 was in the infrastructural industries; one-third of the total investment was in steel and another one-third in mining petroleum and heavy engineering. Sector-wise distribution of investment is shown in Table 17.2.

Turnover

Total turnover of the undertakings amounted to Rs 5,262 crores during

1972-73 as against Rs 3,990 crores in the previous year, registering an increase of 32 per cent. The pattern of turnover in the enterprises during 1971-72 and 1972-73 is given in Table 17.3.

TABLE 17.1
EXPANSION OF INVESTMENT IN PUBLIC SECTOR

Period	No. of units	Total investment (Rs crores)
At the commencement of the First Plan	5	29
At the commencement of the Second Plan	21	81
At the commencement of the Third Plan	48	953
At the end of the Third Plan (as on 31 March 1966)	74	2,415
As on 31 March 1967	77	2,841
As on 31 March 1968	83	3,333
As on 31 March 1969	85	3,902
As on 31 March 1970	91	4,301
As on 31 March 1971	97	4,682
As on 31 March 1972	101	5,052
As on 31 March 1973	113	5,571

TABLE 17.2
SECTOR-WISE DISTRIBUTION OF INVESTMENT IN PUBLIC SECTOR UNDERTAKINGS

(Rs crores)

Category	At the end of 1972-73		At the end of 1971-72	
	Investment	%	Investment	%
A. *Enterprises producing and selling goods*				
Steel	1,840.27	33.0	1,693.75	33.5
Minerals & metals	720.84	13.0	597.24	11.8
Petroleum	378.35	6.8	393.92	7.8
Chemicals & pharmaceuticals	690.91	12.4	553.67	11.0
Heavy engineering	657.38	11.8	658.84	13.0
Medium & light engineering	122.50	2.2	105.96	2.1
Transport equipment	201.20	3.6	182.38	3.6
Consumer goods	52.54	0.9	39.26	0.8
Agro-based industries	7.99	0.1	7.79	0.2
B. *Services enterprises*				
Trading & marketing	292.58	5.3	380.46	7.5
Transportation services	421.96	7.6	321.85	6.4
Contracts & construction services	15.77	0.3	12.88	0.3
Industrial development & technical consultancy services	5.99	0.1	7.02	0.1
Development of small industries	29.64	0.5	26.82	0.5
Tourist services	14.46	0.3	10.45	0.2
Financial services	58.24	1.0	32.81	0.7
Rehabilitation of sick industries	28.58	0.5	21.09	0.4
Insurance services	31.50	0.6	6.00	0.1
TOTAL	5,570.70	100.0	5,052.19	100.0

Exports

The value of exports by public sector undertakings during 1972-73 was Rs 74.12 crores as against Rs 65.5 crores in the preceding year. Foreign exchange earned by other than through exports (ship repairs, freight earnings) amounted to Rs 125 crores in 1972-73 as against Rs 103 crores in 1971-72. The value of exports canalised through trading concerns rose from Rs 191 crores in 1971-72 to Rs 301 crores during 1972-73. Some of the products exported were industrial boilers, electronic instruments, teleprinters, telephone exchange equipment and machine tools.

Profit

The gross profit earned by the enterprises during 1972-73, after providing for depreciation, worked out to Rs 243 crores, yielding a return

TABLE 17.3
TURNOVER IN THE ENTERPRISES

(*Rs crores*)

Category	1972-73	1971-72	% increase as compared to 1971-72
A. *Enterprises producing goods*			
Steel	604.64	444.92	36.0
Minerals & metals	164.25	92.12	78.3
Petroleum	1,203.41	1,048.71	14.8
Chemicals & pharmaceuticals	202.50	178.16	13.5
Heavy engineering	183.40	114.27	65.3
Medium & light engineering	147.04	120.85	21.5
Transport equipment	170.17	138.49	22.9
Consumer goods	22.19	18.47	20.1
Agro-based products	6.81	5.86	16.2
TOTAL	2,704.41	2,161.85	25.1
B. *Enterprises rendering services*			
Trading & marketing services	2,173.49	1,529.90	42.0
Transportation services	275.83	216.12	27.8
Contracts & construction	67.61	51.22	32.2
Industrial development & technical consultancy services	6.07	4.52	34.3
Small industries development	13.00	12.71	2.3
Tourist services	9.14	6.46	41.5
Financial services	5.82	2.24	160.0
Rehabilitation of sick industries	6.65	5.11	30.0
TOTAL	2,557.61	1,828.30	39.9
GRAND TOTAL (A&B)	5,262.02	3,990.15	31.9

of 5.1 per cent on capital employed (Rs 4,756 crores). After meeting interest charges of Rs 162 crores and providing for Rs 63 crores towards taxes, the net profit was nearly Rs 18 crores. During 1971-72, the enterprises earned a gross profit of Rs 169 crores yielding a net return of 4.1 per cent on capital employed (Rs 4,393). After payment of interest and taxes, there was a net loss of Rs 19 crores.

Employment

The number of persons in the employment of the enterprises on 31 March 1973 was 8,04,792 as against 7,01,290 in the preceding year, registering an increase of 14 per cent. Salaries and wages paid to the employees totalled Rs 508 crores as against Rs 415 crores in the previous year. The average annual emoluments per employee was Rs 6,313.

Employee Welfare

A number of enterprises have built and administer townships and housing colonies for their employees. They also provide educational facilities for the children of the employees through their own schools. The expenditure on the maintenance of townships during 1972-73 was Rs 41 crores and on provision of educational facilities Rs 21 crores. The employees also enjoy benefits of provident fund, leave concession, medical and other amenities, retirement gratuity and bonus.

INDUSTRIAL PRODUCTION

Production in selected industries in different years since 1950-51 is given in Table 17.4. The index numbers (base: 1960=100) of industrial production for selected years since 1951 are given in Table 17.5. The general index for 1973 was 200.7 showing a growth rate of 0.7 per cent over 1972 as against a growth rate of 7.1 per cent registered during 1972 over 1971 and 1.0 per cent during 1971 over 1970.

TABLE 17.4

PROGRESS OF INDUSTRIAL PRODUCTION (SELECTED INDUSTRIES)

Sl. No.	Industry (unit)	1950-51	1960-61	1965-66	1969-70	1970-71	1971-72	1972-73[1]
1	2	3	4	5	6	7	8	9
I.	*Mining*							
1.	Coal (including lignite) (lakh tonnes)	328	557	703	800	743	740	793
2.	Iron ore (lakh tonnes)[2]	30	110	181	213	225	232	240
II.	*Metallurgical Industries*							
3.	Pig iron (lakh tonnes)	16.9	43.1	70.9	73.9	69.9	68.0	75.0
4.	Steel (lakh tonnes)	14.7	34.2	65.3	64.3	61.4	64.1	68.2
5.	Finished steel (lakh tonnes)	10.4	23.9	45.1	48.0	44.8	47.9	50.8
6.	Steel castings ('000 tonnes)	—	34	57	46	62	54	56
7.	Aluminium (virgin metal) ('000 tonnes)	4.0	18.3	62.1	135.1	166.8	181.5	174.8
8.	Copper (virgin metal) ('000 tonnes)	7.1	8.5	9.4	9.8	9.3	8.3	12.6
III.	*Mechanical Engineering Industries*							
9.	Machine tools (Rs crores)	0.3	7.0	29.4	32.9	43.0	55.0	62.6
10.	Railway wagons ('000 no.)[3]	2.9	11.9	33.5	14.9	11.1	8.5	10.8
11.	Automobiles ('000 no.)[4]	16.5	55.0	70.7	79.7	87.4	91.5	89.7
	i) Commercial vehicles ('000 no.)[5]	8.6	28.4	35.3	35.4	41.2	39.7	38.4
	ii) Passenger cars etc. ('000 no.)	7.9	26.6	35.4	44.3	46.2	51.8	51.3
12.	Motor cycles and scooters ('000 no.)	—	19.4	40.7	91.0	97.0	112.8	116.6
13.	Power-driven pumps ('000 no.)	35	109	244	359	259	208	287
14.	Diesel engines (stationary) ('000 no.)	5.5	44.7	93.1	134.2	65.7	69.9	93.5
15.	Bicycles ('000 no.)	99	1,071	1,574	1,976	2,042	1,766	2,383
16.	Sewing machines ('000 no.)	33	303	430	340	235	312	340
IV.	*Electrical Engineering Industries*							
17.	Power transformers (lakh kva)	1.8	14.1	44.6	56.6	80.9	88.7	94.4
18.	Electric motors ('000 hp)	99	728	1,753	2,283	2,721	2,348	2,789
19.	Electric fans (lakh no.)	2.0	10.6	13.6	15.5	17.2	20.7	24.3
20.	Electric lamps (lakh no.)	140	485	721	988	1,193	1,206	1,506
21.	Radio receivers ('000 no.)	54	282	606	1,746	1,794	2,004	1,821
22.	Electric cables and wires							
	i) Aluminium conductors ('000 tonnes)	1.7	23.6	40.6	61.2	64.2	79.7	78.1
	ii) Bare copper conductors ('000 tonnes)	5.0	10.1	3.1	2.1	0.7	0.7	1.0

TABLE 17.4 (*Continued*)

1	2	3	4	5	6	7	8	9
V.	*Chemical & Allied Industries*							
23.	Nitrogenous fertilizers ('000 tonnes of N)	9	98	233	716	830	952	1,059
24.	Phosphatic fertilizers ('000 tonnes of P_2O_5)	9	52	111	222	229	278	325
25.	Sulphuric acid ('000 tonnes)	101	368	662	1,197	1,053	975	1,206
26.	Soda ash ('000 tonnes)	45	152	331	427	449	489	486
27.	Caustic soda ('000 tonnes)	12	101	218	354	371	385	397
28.	Paper & paper board ('000 tonnes)	116	350	558	723	755	803	733
29.	Rubber tyres							
	i) Automobile tyres (lakh no.)	8.7	14.4	23.1	36.2	37.9	43.3	43.4
	ii) Bicycle tyres (lakh no.)	33.0	111.5	184.6	213.2	192.0	223.6	196.3
30.	Cement (lakh tonnes)	27.3	79.7	108.2	138.0	144.0	150.0	155.0
31.	Refractories ('000 tonnes)	227	567	695	635	683	808	773
32.	Petroleum products refined (lakh tonnes)	2	58	94	166	171	186	178
VI.	*Textile Industries*							
33.	Jute textiles ('000 tonnes)	837	1,097	1,302	944	958	1,129	1,168
34.	Cotton yarn (crore kg)	53.4	80.1	90.7	96.2	92.9	90.2	97.2
35.	Cotton cloth (crore metres)	421.5	673.8	744.0	775.3	759.6	754.7	792.4
	i) Mill sector (crore metres)	340.1	464.9	440.1	419.2	405.5	403.9	422.4
	ii) Decentralised sector (crore metres)	81.4	208.9	303.9	356.1	354.1	350.8	370.0
36.	Rayon yarn ('000 tonnes)[6]	2.1	43.8	75.6	98.8	98.1	102.3	113.0
37.	Art silk fabrics (crore metres)	28.7[7]	54.4[7]	87.8	86.3	94.7	96.8	91.8
38.	Woollen manufactures							
	i) Woollen and worsted yarn (lakh kg)	87	130	170	188	197	N.A.	N.A.
	ii) Woollen and worsted fabrics (lakh metres)	61[7]	133[7]	92	122	143	N.A.	N.A.
VII.	*Food Industries*							
39.	Sugar (Oct.-Sept.) (lakh tonnes)[8]	11.3	30.3	35.1	42.6	37.4	31.1	38.7
40.	Tea (crore kg)	27.7	32.2	37.6	40.1	42.1	42.3	45.3
41.	Coffee ('000 tonnes)	21.0	54.1	62.1	64.6	72.7	95.6	73.2
42.	Vanaspati ('000 tonnes)	170	340	401	477	558	594	581
VIII.	*Electricity generated* (crore kwh)[9]	530	1,690	3,300	5,200	5,580	6,070	6,360

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[1] Provisional.
[2] Excludes output in Goa. [3] Excludes output in railway workshops. [4] Includes landrovers, jeeps, utilities, station wagons and vans.
[5] Includes buses, trucks, tempos and three and four wheelers. [6] Includes viscose yarn, staple fibre and acetate yarn. [7] Relates to calendar year.
[8] Sugar year was Nov.-Oct. up to 1966-67 season. [9] Relates to public utilities only. N.A.—Not available.

TABLE 17.5

INDEX NUMBERS OF INDUSTRIAL PRODUCTION

(Base : 1960 = 100)

Group	1951	1961	1966	1970	1971	1972	1973[1]	% change in 1973 over 1972
General Index	54.8	109.2	153.2	184.3	186.1	199.4	200.6	+ 0.6
Mining & quarrying	66.6	105.4	136.1	149.0	153.4	164.2	163.6	— 0.4
Food manufacturing	66.9	108.6	130.5	160.0	157.6	162.5	154.5	— 5.0
Beverages & tobacco	58.0	107.0	158.9	175.6	182.5	174.1	178.9	+ 2.8
Textiles	79.7	102.8	108.9	110.6	106.0	114.4	113.3	— 1.0
Cotton textiles	N.A.	104.8	106.5	111.8	105.2	112.6	114.1	+ 1.3
Jute textiles	N.A.	89.1	100.4	85.1	94.7	96.8	90.6	— 6.4
Footwear (leather)	63.5	115.4	184.2	161.3	168.1	150.8	151.3	+ 0.3
Wood & cork, except furniture	43.5	95.5	205.1	220.2	224.1	217.7	158.4	— 27.2
Paper & paper products	38.5	105.8	160.0	217.1	225.7	226.1	239.4	+ 5.9
Leather & fur products	72.4	100.9	120.9	61.0	55.3	59.9	76.4	+ 27.5
Rubber products	56.1	112.9	160.2	216.4	241.8	256.0	250.6	— 2.1
Chemicals & chemical products	42.4	113.4	168.4	233.0	252.7	293.8	301.9	+ 2.8
Petroleum refinery products	11.0	106.0	195.9	298.9	316.9	317.2	332.8	+ 4.9
Non-metallic mineral products	39.0	106.9	148.1	195.6	207.6	225.2	226.6	+ 0.6
Basic metal industries	46.5	118.7	191.6	210.0	208.6	225.3	216.5	— 3.1
Metal products	30.7	112.4	208.4	244.5	234.4	242.7	240.5	— 0.9
Machinery except electrical machinery	22.2	121.2	295.6	408.6	373.2	402.7	454.7	+ 13.0
Electrical machinery, apparatus, appliances, etc. ..	26.3	110.0	225.1	369.2	404.8	435.0	436.6	+ 0.4
Transport equipment	19.6	116.7	156.0	133.5	122.1	133.4	148.1	+ 11.0
Miscellaneous mfg. industries	N.A.	102.7	134.2	121.1	114.0	86.5	75.6	— 12.6
Electricity generated	35.7	116.3	207.8	334.4	358.5	390.7	383.8	— 1.8

N.A.—Not available.

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[1] Provisional.

PRINCIPAL INDUSTRIES

COTTON TEXTILES

The origin of the cotton textile industry, the largest single industry in the country, dates back to 1818 when the first cotton mill was established at Fort Gloster near Calcutta. The grant of protection and the Swadeshi movement enabled the industry to make rapid strides. The number of mills increased to 389 in 1939 with 2,02,464 looms. In 1972, there were 674 mills (384 spinning and 290 composite) with an installed capacity of 182 lakh spindles and 2.08 lakh looms. In 1947, cotton yarn production was 59.7 crores kg and piecegoods production 350.9 crore metres. The production of cotton yarn in 1973 was 99.8 crore kg and that of cotton cloth produced by the mills 416.8 crore metres. The decentralised sector of handlooms and powerlooms produced 360.1 crore metres of cotton cloth.

Production of cotton yarn and cloth since 1950-51 is shown in Table 17.4.

JUTE

As a major earner of foreign exchange for India, the jute industry occupies an important place in the country's economy. The first power-driven jute mill was established at Rishra near Calcutta in 1859 and thereafter the industry made rapid progress. The partition of the country in 1947 deprived the industry of its vital raw material and reduced the number of mills to 106. Production in 1947-48 was only 16.5 lakh bales as against the pre-partition output of 65-70 lakh bales. In 1973-74, production of raw jute reached a record level of 80 lakh bales. Production of jute goods in 1973-74, however, was 10,74,400 tonnes as against 12,11,000 tonnes in 1972-73.

Table 17.4 shows the progress of the jute industry since 1950-51.

The Jute Corporation of India was set up in 1971 to manage the export, import and internal marketing of raw jute. During 1973-74, it was able to stabilise the prices of raw jute throughout the country over the whole year.

SUGAR

The sugar industry ranks second among the major agro-industries. It received great impetus after the grant of protection in 1931. The number of factories went up from 138 in 1950-51 to 229 in 1973-74. Similarly, production also increased from 11.34 lakh tonnes in 1950-51 to 38.60 lakh tonnes in 1973-74 against the licensed capacity of 56 lakh tonnes. Sugar exports during 1972-73 were 97,000 tonnes as compared to 1.44 lakh tonnes in 1971-72. A feature of the development of the sugar industry after 1947 has been its remarkable expansion in the cooperative sector. Out of 228 factories in 1972-73, 87 were in the cooperative sector and produced about 37.5 per cent of the sugar output.

The progress of the industry since 1950-51 is shown in Table 17.6.

TABLE 17.6
GROWTH OF SUGAR INDUSTRY

	1950-51	1960-61	1965-66	1971-72	1972-73	1973-74[1]
No. of mills	138	174	200	220	228	229[2]
Production ('000 tonnes)[3]	1,134	3,021	3,541	3,113	3,873	3,860

[1] Up to 22 June 1974.

[2] Provisional.

[3] Up to 1966-67, the sugar year was November-October but later it was changed to October-September.

CEMENT

Manufacture of cement was first started in Madras in 1904. A real beginning on a large scale, however, was made in 1912-13 when three companies were formed. At present, there are 51 cement factories, 9 in the public sector, with a total installed capacity of about 2 crore tonnes per annum. Total production of cement in 1973-74 was 1.47 crore tonnes as compared to 27 lakh tonnes in 1950-51.

The Cement Corporation of India, New Delhi, is the only public sector undertaking in the central sector so far as the cement industry is concerned. It has two factories, one in Karnataka and the other in Madhya Pradesh. Both have a capacity of two lakh tonnes each per annum. Another factory at Bokajan with a similar capacity is under construction and is likely to go into production in 1975.

The growth of the industry is traced in Table 17.4.

Asbestos Cement

The installed capacity of asbestos cement products is 5.6 lakh tonnes spread over nine units. Production in 1973 was about 4.03 lakh tonnes as compared to 3.91 lakh tonnes in 1972.

PAPER AND PAPER BOARD

Production of machine-made paper in India dates back to 1870, when the Bally Mills was established near Calcutta. Between 1939 and 1945, the number of mills increased to 15 and production reached 1,03,884 tonnes (1944). Rapid progress has been made since 1950. There are at present 63 paper mills with a total capacity of 9.63 lakh tonnes per annum. Production in 1973 was estimated at 8 lakh tonnes as against 1.09 lakh tonnes in 1951.

The progress of the industry is shown in Table 17.4.

The Hindustan Paper Corporation Ltd., New Delhi, a public sector undertaking, was set up in 1970 to establish pulp and paper projects in the country. The corporation has drawn up plans to set up three pulp and paper projects and one newsprint project. The Nagaland pulp and paper project with a capacity of 30,000 tonnes per annum of pulp and writing and printing paper is expected to go into production in 1977. The other two units, namely, the Nowgong pulp and paper project, and the Cachar pulp and paper project, when set up, will have a capacity of 80,000 tonnes of paper and pulp per annum. Work on the Kerala newsprint project, which will have a capacity of 70,000 tonnes of newsprint and 10,000 tonnes of magazine paper, is in progress.

Newsprint

The National Newsprint and Paper Mills Ltd., Nepanagar in Madhya Pradesh, the only newsprint mill in the country, went into production in 1955. The mill, which is in the public sector, has an installed capacity of 30,000 tonnes which is being increased to 75,000 tonnes. The production in 1973-74 was about 49,500 tonnes as compared to 41,500 tonnes in 1972-73.

PHOTO PAPER AND FILMS

The Hindustan Photo Films Manufacturing Co. Ltd. was set up at Ootacamund in 1960 by the Government of India for the manufacture of cine, X-ray, roll and graphic art films and photo paper. The project has an installed capacity of 61.5 lakh sq. metres. During 1973-74, it produced about 35 lakh sq. metres of various kinds of photographic materials valued at Rs 6.93 crores as against 29 lakh sq. metres valued at Rs 5.65 crores in 1972-73.

IRON AND STEEL

The earliest successful attempt to manufacture iron and steel by modern methods was made in the country in 1874. But the first efforts at large-scale production got under way when the Tata Iron and Steel Company (TISCO) was set up at Jamshedpur in 1907. This was followed by the establishment of the Indian Iron and Steel Company (IISCO) at Burnpur in 1919. The first unit in the public sector, the Mysore Iron and Steel Works, now known as the Mysore Iron and Steel Ltd., started functioning at Bhadravati in 1923. After Independence, the development of the steel industry was considered during the First Plan but it was only in the Second Plan (1956-61) that work was started to set up three integrated steel projects each with 10 lakh ingot tonnes capacity at Bhilai, Durgapur and Rourkela. An expansion programme to double the capacity of the two private sector steel plants, namely, TISCO and IISCO, to 20 lakh tonnes and 10 lakh tonnes respectively was also taken in hand. The three plants in the public sector came into operation in stages between 1956 and 1962 and the expansion of the private sector factories was completed in 1959. In the Third Plan, the emphasis was on expansion of the three public sector steel plants and the setting up of a new steel works at Bokaro. The Fourth Plan steel programme was based on the maximum utilization of existing steel capacity and preparation of plans to set up three new steel plants at Salem (Tamil Nadu), Vijayanagar (Karnataka) and Visakhapatnam (Andhra Pradesh) to create additional steel capacity to meet the requirements in the Fifth Plan.

There are at present six integrated steel plants in the country, four in the public sector and two in the private sector. Of the private sector plants, the management of the Indian Iron and Steel Company was taken over by the central government in 1972.

Table 17.7 shows the capacity of the six integrated steel plants.

TABLE 17.7
RATED CAPACITY OF STEEL PLANTS

('000 *tonnes*)

Plant	Rated capacity	
	Ingot steel	Saleable steel
Public sector		
Bhilai	2,500	1,965
Durgapur	1,600	1,239
Rourkela	1,800	1,225
Bokaro[1]	1,700	1,364
Private sector		
TISCO	2,000	1,500
IISCO	1,000	800
TOTAL	10,600	8,093

[1] Relates to the first stage of Bokaro which is under construction.

Capacity has also been created in the country for the manufacture of alloy, tool and special steels. The Alloy Steels Plant, Durgapur, with a capacity of 60,000 tonnes and the Mysore Iron and Steel Ltd. with a capacity of 77,000 tonnes are two of the major producers. Other manufacturers include Mahindra Ugine Steel Company Ltd. at Khopoli near Bombay and Guest Keen Williams Ltd., Calcutta. In addition, a new steel plant is being set up at Patratu in Bihar. Capacity has also been set up for the production of ferro alloys, which constitute an essential raw material input for alloy steels making.

A large number of electric arc furnaces have also been established all over the country for processing ferrous scrap into steel ingots and billets which are the feed stock for a large number of re-rolling mills. There are also several wire drawing units, cold rolling mills and a few pig iron units.

SAIL

To co-ordinate the development of the iron and steel industry both in public and private sectors, the Government of India set up the Steel Authority of India Ltd. (SAIL) in 1973. SAIL owns all the shares in the public sector corporations connected with steel and associated industries like coking coal, iron ore and manganese ore as well as all government shares in the private sector companies. It also acts as the nominee of public sector financial institutions, which hold shares in private sector companies for steel and associated input industries, refractory units and smaller steel producing organisations.

Hindustan Steel Ltd.

The management of three public sector steel plants, namely, Bhilai, Durgapur and Rourkela is vested in the State-owned Hindustan Steel Ltd., a subsidiary of SAIL.

The Bhilai steel plant, which was set up with an initial capacity of 10 lakh ingot tonnes per annum, now has a capacity of 25 lakh ingot tonnes. In 1973-74, the production was 18.94 lakh tonnes as against 21.08 lakh tonnes in 1972-73. The plant's capacity is being further expanded to about 40 lakh ingot tonnes.

The production in the Durgapur steel plant, which has a capacity of 16 lakh ingot tonnes, was 7.76 lakh tonnes in 1973-74 as against 7.23 lakh tonnes in 1972-73.

The present capacity of the Rourkela steel plant is 18 lakh ingot tonnes against the initial capacity of 10 lakh tonnes. During 1973-74, production was 10.81 lakh tonnes as against 11.77 lakh tonnes in the preceding year.

Bokaro Steel Ltd.

The Bokaro Steel Ltd., a subsidiary of SAIL, manages the fourth steel plant in the public sector which is being set up at Bokaro. It will have a capacity of 17 lakh ingot tonnes in the first stage and 40 lakh ingot tonnes in the second stage. A recent study showed that the capacity of the plant can be expanded to about 100 lakh ingot tonnes annually. A feasibility study is being prepared for this expansion.

The first stage, which is estimated to cost about Rs 830 crores, is nearing completion. The first blast furnace complex was commissioned in 1972 and the first oxygen converter of the steel melting shop in 1974. Up to 31 March 1974, production totalled 9,72,000 tonnes of pig iron and 20,500 tonnes of steel ingots. The second stage, which is likely to cost about Rs 513 crores, is expected to be completed by 1977.

New Steel Plants

Three new steel plants are to be set up at Salem (Tamil Nadu), Vijayanagar (Karnataka) and Visakhapatnam (Andhra Pradesh).

The Salem plant is being planned for the production of 1,95,000 tonnes of sheet and strip products, comprising 70,000 tonnes of stainless steel, 75,000 tonnes of electrical steel and 50,000 tonnes of other special steels. A new company under the name of Salem Steel Ltd. (now a subsidiary of SAIL) was set up in 1972 for implementing this project. The Vijayanagar and Visakhapatnam steel projects are being planned for an ultimate capacity of 30 lakh ingot tonnes each. While the Vijayanagar steel project will produce strip products and billets, the Visakhapatnam steel project will be designed for the production of sectional products.

Preliminary work is in progress at the project sites. The first phase of the Salem steel plant for the production of about 30,000 tonnes of cold rolled stainless steel sheets is expected to be commissioned by the end of the Fifth Plan. The other two projects are likely to be completed during the Sixth Plan.

Projected Demand for Steel and Pig Iron

The total demand for pig iron in 1974-75 is estimated to be about 15 lakh tonnes including the requirements of electric arc furnaces for melting purposes. This is expected to increase gradually to 20 lakh tonnes by the end of the Fifth Plan.

The total domestic demand for finished steel, which was 58 lakh tonnes in 1973-74. is expected to rise to 94 lakh tonnes in 1978-79. The development programme for steel for the Fifth Plan has been framed accordingly. It will involve the capacity expansion of Bhilai from 25 lakh ingot tonnes to 40 lakh ingot tonnes and achieving a capacity of 47.5 lakh ingot tonnes at Bokaro. The integrated steel plants are expected to contribute about 88 lakh tonnes of finished steel, and electric arc furnaces and re-rollers six lakh tonnes by 1978-79.

Export of iron and steel has been mainly restricted to commitments already entered into. The largest exporter continued to be the Hindustan Steel Ltd. Exports during 1973-74 totalled 4,30,801 tonnes of pig iron and 36,652 tonnes of steel valued at Rs 15.59 crores and Rs 4.62 crores respectively.

MECON

To provide consultancy and engineering services in the field of iron and steel, the Central Engineering and Design Bureau of Hindustan Steel Ltd. was incorporated in 1973 as an independent company, the Metallurgical and Engineering Consultants (India) Ltd. The company, which is a subsidiary of SAIL, also functions as a consultant to a number of organisations.

Coal Washeries

For the supply of washed coal to the steel plants in the public sector, the Hindustan Steel Ltd. owns five coal washeries—one at Durgapur, two at Dugda and one each at Patherdih and Bhojidih.

ENGINEERING INDUSTRY

The engineering industry was practically non-existent at the time of Independence. But India has now become self-sufficient in a variety of engineering equipment and has the capability of designing, developing and fabricating a diverse range of machines and equipment for a variety of process plants and engineering units. The country is currently producing steel, chemical and fertilizer plants, electrical and construction machinery, machine tools and transport and agricultural equipment and a large number of other items (see Table 17.4).

Heavy Engineering, Heavy Mechanical and Industrial Machinery

Heavy engineering industries made rapid progress in 1973. Production of cast iron and alloy iron castings increased from 1,37,000 metric tonnes in 1972 to 1,60,000 metric tonnes in 1973; S.G. iron castings from 2,700 to 3,000 metric tonnes, transmission towers from 60,000 metric tonnes to 75,000 metric tonnes and railway wagons (four wheeler units) from 9,721 metric tonnes to 10,800 metric tonnes.

The estimated value of production of some selected industrial machinery for 1973 and 1972 (in brackets) was: textile machinery (including spares and accessories) Rs 85.16 crores (Rs 65.80 crores), chemicals and pharmaceutical machinery Rs 31.31 crores (Rs 27.60 crores), sugar mill machinery Rs 20.00 crores (Rs 18.00 crores), conveyors Rs 14.00 crores (Rs 11.00 crores), cement machinery Rs 7.00 crores (Rs 2.14 crores), dairy machinery Rs 3.96 crores (Rs 3.70 crores), and ship-building and repair Rs 14.00 crores (Rs 10.00 crores).

Among other items of production, jute mill, printing, rubber and tea processing machinery, weighing machines and industrial filters showed improvement. The coal and ore mining machinery industry is now in a position to meet practically the entire requirements of the industry. A wide variety of articles like coal cutters, loaders, haulages, winders, coal combines, shuttle cars and mine locomotives are being manufactured by the public sector unit, the Mining and Allied Machinery Corporation Ltd. (MAMC) at Durgapur, and a number of private sector units. The MAMC has a capacity to manufacture 45,000 tonnes a year of various items of mining equipment. The value of production during 1973-74 was Rs 17.75 crores as compared to Rs 14.50 crores in 1972-73.

There are at present three units manufacturing steel plant equipment, two in the public sector and one in the private sector. The public sector units are the Heavy Engineering Corporation, Ranchi, and Triveni Structurals, Naini (Allahabad).

The Heavy Engineering Corporation Ltd., Ranchi, incorporated in 1958, manages three projects, *viz.,* Heavy Machine Building Plant, Foundry Forge Plant and Heavy Machine Tools Plant. The value of production of the three units during 1973-74 was Rs 62.42 crores as against Rs 49.00 crores in 1972-73.

The Triveni Structurals Ltd. was set up at Naini, Allahabad, in 1965 to promote designing and manufacture of sophisticated steel structures. The value of production during 1973-74 was Rs 4.50 crores as compared to Rs 2.80 crores in the previous year.

The Tungabhadra Steel Products Ltd. at Tungabhadra Dam, Karnataka, was started as a repair and maintenance shop in 1947. In 1967, the Government of India acquired a controlling interest by investing Rs 51 lakhs. The company now manufactures structurals, including gates and hoists, transmission towers and penstock pipes. The value of production during 1973-74 was Rs 2.28 crores as against Rs 2.10 crores in the preceding year.

The Bharat Heavy Plate and Vessels Ltd., Visakhapatnam, was set up in 1966 for manufacturing a range of fabricating equipment required by the fertilizer and other processing industries, petroleum, petro-chemical and other heavy chemicals and allied industries.

Production at the plant started in a small way in 1969. The value of production during 1973-74 was Rs 8.82 crores as against Rs 4.60 crores in 1972-73.

Light Mechanical Industries

Some of the important products of the light mechanical industries are bicycles and bicycle parts, balls and roller bearing, typewriters, time pieces and wrist watches, data processing machines, agricultural implements and light machinery. The value of production for 1973 and 1972 of some of these industries was: bicycles: Rs 44.23 crores and Rs 38.35 crores; ball and roller bearings: Rs 32.51 crores and Rs 26.41 crores; data processing machines: Rs 5.55 crores and Rs 3.07 crores; time-pieces: Rs 2.35 crores and Rs 2.21 crores; agricultural implements (manually operated and animal driven): Rs 10.50 crores and Rs 7.12 crores.

Machine Tools

The upward trend in the production of machine tools was maintained in 1973. Eighty one major units produced machine tools valued at about Rs 62 crores as against Rs 52 crores in the previous year. Portable tools manufacture was valued at Rs 3.50 crores as compared to Rs 2.5 crores in 1972. The average import content in the industry came down from 21 per cent in 1970 to 11 per cent in 1973.

Some of the important public sector undertakings manufacturing machine tools are described below.

The Hindustan Machine Tools Ltd., Bangalore, is the premier machine tools manufacturing company in the country producing 30 different types of machine tools. It has units at Bangalore, Pinjore (Haryana), Kalamassery (Kerala) and Hyderabad. The company has also a watch factory at Bangalore with a capacity of 3,60,000 watches annually. It is being expanded to produce 2,00,000 automatic watches with calendar mechanism per annum. Another watch factory has been set up at Srinagar with an annual capacity of 3,00,000 watches of ordinary type. The value of production of all the units during 1973-74 was Rs 40.38 crores as compared to Rs 31.20 crores.

The Central Machine Tools Institute, Bangalore, which went into production in 1965, is the primary research institute in the field of machine tools in the country. Its other functions include designing, standardisation, training and documentation.

The Machine Tool Corporation of India, Ajmer, was incorporated in 1967 for setting up a grinding machine tool plant at Ajmer. The company commenced commercial production in 1970. During 1973-74, the value of production was Rs 1.51 crores as against Rs 1.10 crores in the preceding year.

Light Electrical Industries

Production of light electrical industries has gone up considerably in recent years. Estimated production of a few selected items in 1973 and the comparative figures for 1972, given in brackets, are: G.L.S. and other lamps Rs 15.41 crores (Rs 14.97 crores), fluorescent tubes Rs 5.54 crores (Rs 6.85 crores) and miniature lamps Rs 1.72 crores (Rs 1.48 crores).

Heavy Electrical Industries

Apart from Bharat Heavy Electricals Ltd. (BHEL) and some other public sector undertakings under the state governments, there are several large private sector units which are producing a large number of items for the heavy electricals industry. BHEL, which is a central public sector undertaking, was incorporated in 1964. It consists of four units, namely, Bhopal unit (formerly known as Heavy Electricals Ltd.), Tiruchirappalli unit, Hyderabad unit and Hardwar unit. In 1973-74, it registered the most impressive improvement in production. Against a production target of generating equipment, including boilers and other items like transformers, switchgear and motors valued at Rs 224 crores, BHEL at its four units produced equipment valued at Rs 228 crores. As a result of high levels of production at BHEL, the country is now self-sufficient in heavy power generation and distribution equipment.

The Hindustan Cables Factory, Rupnarainpur, West Bengal, began production in 1954. The factory, which is in the public sector, produced 6.73 lakh cubic km of dry core cables, 3,193 tube km of coaxial cables and 54,594 cubic km of plastic wires and cables during 1973-74. The value of output of all items in 1973-74 totalled Rs 12.2 crores as compared to Rs 8.4 crores in 1972-73. To meet the increased requirements of Posts and Telegraphs Department, the company is setting up another unit at Hyderabad with a capacity of 5,000 km of tele-communication cables.

Instruments

Nine units produce industrial process control instruments. The value of production showed a marginal increase from Rs 7.90 crores in 1972 to Rs 8.02 crores in 1973. Production of scientific, surveying, optical and mathematical instruments also went up from Rs 3.18 crores in 1972 to Rs 5.00 crores in 1973, and that of X-ray and electro-medical equipment increased from Rs 2.95 crores to Rs 3.50 crores in the same period. A brief description of the major public sector undertakings manufacturing various types of instruments is given below.

Instrumentation Ltd., Kota, incorporated in 1964, manufactures various industrial process control instruments. It went into commercial production in 1968 and achieved a production value of Rs 4.05 crores in 1972-73 which declined to Rs 3.50 crores in 1973-74. The undertaking is also executing the supply of instrumentation systems for various projects in Egypt, Iraq and Malaysia.

The National Instruments Ltd., Calcutta, has been in existence since 1830 as a department of the central government. It was converted into a government company in 1957. The undertaking manufactures various types of surveying, meteorological, scientific and industrial instruments. The unit achieved a record production of Rs 3.0 crores during 1973-74 as against Rs 1.1 crores in 1972-73.

The Bharat Opthalmic Glass Ltd., Durgapur, was incorporated as a company in 1972 and took over the opthalmic glass plant at Durgapur which till then was a unit of National Instruments Ltd., Calcutta. This is the only project of its kind in the country producing opthalmic blanks, which are otherwise imported. The value of production went up from Rs 19.08 lakhs in 1972-73 to about Rs 23.32 lakhs in 1973-74.

Automobiles

Production of various types of vehicles was higher in 1973 as compared to the previous year. The figures for 1973 and 1972 (in brackets) were as follows: commercial vehicles 42,398 (37,466); passenger cars 42,472 (40,039); jeeps 13,071 (12,589) and scooters (2 wheelers) 78,079 (64,731). To bridge the gap between demand and production of commercial vehicles, the total capacity is being increased from 73,400 vehicles per annum to 1,29,000 per annum. Similarly, in view of the increasing demand for scooters, a new company in the public sector called the Scooters India Ltd., was formed at Lucknow in 1972.

DRUGS AND PHARMACEUTICALS AND CHEMICALS

Before 1947, most of the bulk drugs were imported and only processing and formulations were done in India. Since then, most of the bulk drugs are manufactured indigenously and the drugs industry has attained the status of a major industry. The value of drugs and pharmaceuticals produced during 1973-74 was about Rs 350 crores as compared to Rs 12 crores in 1948. To reduce the import of bulk drugs and to have an orderly development of the industry, two public sector projects have been set up. They are the Indian Drugs and Pharmaceuticals Ltd. and the Hindustan Antibiotics Ltd. The two undertakings contribute about 40 per cent of the bulk production and 6 to 8 per cent of formulations production in the country. For the production of organic chemicals and organic formulations, the Hindustan Organic Chemicals Ltd. and the Hindustan Insecticides Ltd. have been established. A brief description of the four undertakings is given below.

Indian Drugs and Pharmaceuticals Ltd.

The Indian Drugs and Pharmaceuticals Ltd., New Delhi, was set up in 1961 to manufacture a variety of antibiotics and wide range of drugs from the very basic stages. It comprises the following three units. (i) *Antibiotics Plant, Rishikesh:* The plant produces, among others, penicillin, streptomycin, tetracycline and nystatin. Production was 1,21,128 milliards in 1973-74 as against 1,20,664 milliards in 1972-73. (ii) *Synthetic Drugs Plant, Hyderabad:* It produces a wide range of sulphas, vitamins, analgesics and anti-TB drugs. Production in 1973-74 was 1,305 tonnes as against 1,166 tonnes in the preceding year.

(iii) *Surgical Instruments Plant, Madras:* The plant manufactures different types of surgical instruments. Its production during 1973-74 was 3,62,822 instruments valued at Rs 37.50 lakhs as against 6,69,247 instruments valued at Rs 68.78 lakhs in 1972-73.

Hindustan Antibiotics Ltd. The Hindustan Antibiotics Ltd., Poona, was incorporated in 1954. It undertakes basic manufacture of penicillin, streptomycin, hamycin and vitamin C. The production of penicillin and streptomycin was 75.538 mmu and 63,972 kg during 1973-74 as against 81.87 mmu and 72,349 kg in the preceding year.

Hindustan Organic Chemicals Ltd. The Hindustan Organic Chemicals Ltd., Kolaba, incorporated in 1960, manufactures various organic chemicals and intermediates required by drugs, dyestuffs and plastic industries. At present, it manufactures 11 chemicals. Their production during 1973-74 (up to 31 December 1973) was 24,386 tonnes.

Hindustan Insecticides Ltd. The Hindustan Insecticides Ltd., New Delhi, incorporated in 1954, is a major producer of insecticides like DDT. It has two factories at Delhi and Alwaye (Kerala). Production of DDT (Technical) at Delhi and Alwaye factories during 1973-74 was 2,112 and 1,334 tonnes respectively. The Alwaye unit also produces BHC and its production during 1973-74 was 1,245 tonnes as against 1,682 tonnes during 1972-73. The combined turnover of the two units was Rs 5.03 crores in 1972-73 as against Rs 3.96 crores in the previous year.

PETRO-CHEMICALS

The first petro-chemical complex was commissioned at Trombay in 1966 by the Union Carbide India Ltd., a private sector undertaking. Another two petro-chemical complexes of the Union Carbide India Ltd. and National Organic Chemicals Ltd. (private sector undertaking) started production in 1967 and 1968 respectively. To step up the establishment of petro-chemical complexes around the public sector refineries, the Indian Petro-chemicals Corporation Ltd. (IPCL) was set up at Jawaharnagar in Vadodara in 1969 as a wholly owned company of the Government of India. Initially, the IPCL has been entrusted with the development of the complex near Koyali in Gujarat. The DMT unit of its aromatics plant produced 3,863 tonnes of DMT in 1973. The xylene plant, which went into production in 1973, produced 525 tonnes of mixed xylene, 46 tonnes of para-xylene and 1,299 tonnes of ortho-xylene during 1973-74.

Production of plastics in the country was 1,22,000 tonnes in 1973 as compared to 1,14,000 tonnes in 1972. Synthetic fibre production reached 26,445 tonnes in 1973, an increase of 17 per cent over 1972. Synthetic rubber production in 1973 was 20,866 tonnes as against 32,698 tonnes in 1972.

FERTILIZERS

The fertilizer industry in India is of comparatively recent origin. Inspite of the fact that the first factory to produce superphosphate on commercial scale was established as early as 1906 at Ranipet in Tamil Nadu, it was only in early '50s that fertilizer manufacture began to assume the dimensions of a major industry. In 1973, there were over 50 factories in operation as against 9 in 1950. Production of nitrogenous fertilizers in 1973-74 was 10.60 lakh tonnes as against 9,000 tonnes in 1950-51. Similarly, production of P_2O_5 also increased to 3.17 lakh tonnes as against 9,000 tonnes in 1951.

The total capacity of the public sector factories at Sindri, Nangal, Trombay, Rourkela, Alwaye, Neyveli, Namrup, Gorakhpur, Durgapur, Cochin and Madras and the private sector factories at Ennore, Varanasi, Vadodara, Visakhapatnam, Kota, Goa and Kanpur together with by-products from coke oven plants on 31 March 1974 was 19.39 lakh tonnes of nitrogen. Another 18 major projects with a total capacity of 22.22 lakh tonnes of nitrogen and 6.62 lakh tonnes of P_2O_5 are in various stages of execution. Of these, seven factories at Barauni, Khetri, Namrup Expansion, Tuticorin, Kota Expansion, Kandla and Visakhapatnam Expansion, having a total capacity of 8.22 lakh tonnes of nitrogen and 2.99 lakh tonnes of phosphate, are expected to go into production in 1974-75.

To step up the production of fertilizers in the country, a number of public sector undertakings have been set up. These are described below.

The Fertilizer Corporation of India, which was set up in 1961, had six operating units and eleven units under construction on 31 March 1973. The operating units are at Sindri (Bihar), Nangal (Punjab), Trombay (Maharashtra), Gorakhpur (Uttar Pradesh), Namrup (Assam) and Durgapur (West Bengal). The units under construction are at Barauni (Bihar), Namrup Expansion (Assam), Ramagundam (Andhra Pradesh), Talcher (Orissa), Sindri Modernisation (Bihar), Sindri Rationalisation (Bihar), Trombay Expansion (Maharashtra), Haldia (West Bengal), Gorakhpur Expansion (Uttar Pradesh), Nangal Expansion (Punjab) and Korba (Madhya Pradesh).

The Fertilizers and Chemicals (Travancore) Ltd., (FACT), is a pioneer in the large scale manufacture of chemical fertilizers. It has two operating units at Alwaye and Cochin. Work on the second stage of the Cochin unit with the assistance of the World Bank is also under way.

The Madras Fertilizer Ltd., a joint sector undertaking, was formed in 1966. The factory, which has a capacity of 1.64 lakh tonnes of nitrogen and 85,000 tonnes of phosphate, went into production in 1971.

The Rourkela fertilizer factory, an adjunct of the Rourkela steel plant, was commissioned in 1962. During 1973-74, the factory produced 46,000 tonnes in terms of nitrogen.

A unit, set up at Neyveli and integrated with Neyveli Lignite Corporation, started production in 1966. During 1973-74, it produced 15,000 tonnes of nitrogen.

MINING AND MINERALS

MINERAL RESOURCES

India is richly endowed with minerals. The estimated deposits of some of the principal minerals found in the country are given below.

Apatite and Phosphorite

Apatite deposits of commercial importance exist in the Singhbhum district of Bihar and Visakhapatnam district of Andhra Pradesh. Deposits of phosphorite are located in Madhya Pradesh, Rajasthan and Uttar Pradesh. They have been estimated at about 5.5 crore tonnes.

Bauxite

Important deposits occur in Bihar, Karnataka, Madhya Pradesh, Maharashtra, Orissa and Tamil Nadu. Promising reserves have been located in Andhra Pradesh, Goa, Kerala, and Uttar Pradesh. The reserves of bauxite of all grades have been estimated at 24.9 crore tonnes.

Coat and Lignite

Coal deposits of economic significance occur in Andhra Pradesh, Bihar, Madhya Pradesh, Maharashtra, Orissa and the Gondwana rock formation in West Bengal and in the tertiary formation in Arunachal Pradesh, Assam, Meghalaya and Nagaland. The overall reserves of coal, both coking and non-coking, have been estimated at 8,095 crore tonnes. Of these, the reserves of coking coal in the Gondwana coalfields alone are about 2,015 crore tonnes.

Significant reserves of lignite occur in Gujarat, Jammu and Kashmir, Rajasthan and Tamil Nadu. The total estimated reserves are about 210 crore tonnes.

Chromite	Deposits of economic significance occur in Bihar, Karnataka, Maharashtra, Orissa and Tamil Nadu. The total reserves of *insitu* chromite, including lump and fine varieties, are about 1.38 crore tonnes.
Copper Ore	The important copper ore bearing areas are Agnigundala in Andhra Pradesh, Singhbhum in Bihar, Malanjkhand in Madhya Pradesh and Khetri and Dariba in Rajasthan. The aggregate reserves have been estimated at about 24.3 crore tonnes.
Diamond	The Panna diamond belt, the only diamond producing area in the country, is spread over the districts of Panna, Chhatarpur and Satna (only some parts) in Madhya Pradesh as well as some parts of Banda district of Uttar Pradesh. The diamond field in the south is spread over the districts of Anantapur, Cuddapah, Kurnool, Krishna and Godavari in Andhra Pradesh and Bellary in Karnataka.
Gold	There are three important groups of gold mines in the country, *viz.*, Ramagiri gold field, Anantapur district, Andhra Pradesh; Kolar gold field, Kolar district, Karnataka; and Hutti mines, Raichur district, Karnataka. Karnataka is the only gold producing state in the country.
Gypsum	Gypsum is produced mainly in Rajasthan and Tamil Nadu.
Ilmenite	It occurs mainly in the eastern and western coasts of India, associated with the beach sands. Of the workable deposits of this type, those in Kerala and Tamil Nadu are important. Total inferred reserves of ilmenite in beach sands have been put at over 13.3 crore tonnes.
Iron Ore	Large deposits occur in Bihar, Goa, Karnataka, Madhya Pradesh and Orissa. The estimated reserves of haematitic ore, containing 55 per cent and more of iron, are about 818 crore tonnes. Besides this, about 202.5 crore tonnes of magnetite ore reserves have also been estimated.
Lead-Zinc Ore	The known reserves of lead-zinc ore are located in Gujarat and Rajasthan. Lead ore deposits are known to exist at Agnigundala in Andhra Pradesh and Sargipalle in Orissa.
Manganese Ore	Important deposits of manganese ore are located in Andhra Pradesh, Bihar, Goa, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Orissa and Rajasthan. The total measured, indicated and inferred, reserves are 10.8 crore tonnes.
Mica	Economic deposits of mica are found in three important belts in Andhra Pradesh, Bihar and Rajasthan.

Nickel Ore

Nickel ore is found in the Cuttack district of Orissa. The total reserves are placed at 6.5 crore tonnes, of which 4.3 crore tonnes are estimated in Kansa block and 2.2 crore tonnes in Saruabil-Sukarangi area.

Oil

The potential oil-bearing areas are located in Assam, Tripura, Manipur, West Bengal, Ganga Valley, Punjab, Himachal Pradesh, Kutch, eastern and western coastal areas (in Tamil Nadu, Andhra Pradesh and Kerala), Andaman and Nicobar Islands, Lakshadweep and in the continental shelves adjoining these areas.

Pyrite and Pyrrhotite

Reserves of about 2.1 crore tonnes pyrite and pyrrhotite have been proved in the Amjhore field of Bihar and 3.1 crore tonnes in Saladipura, Sikar district, Rajasthan.

Refractories

Important deposits of magnesite are found in Karnataka, Chalk Hills and adjacent areas in Salem district, Tamil Nadu, and Almora district, Uttar Pradesh. The total *insitu* reserves of magnesite are about 52.4 crore tonnes. The estimated reserves of sillimanite are about 3.4 lakh tonnes, of which nearly 2 lakh tonnes are in Sonapahar area of Meghalaya and 1 lakh tonnes in Pipra area of Madhya Pradesh. In the beach sands of Quilon, Kerala, the reserves of sillimanite bearing sands are estimated at 1.3 crore tonnes with 5.10 per cent sillimanite. Total estimated reserves of kyanite are 37.9 lakh tonnes which is found in Bihar, Karnataka, Maharashtra and Orissa. The kyanite deposit around Lapsa Buru in Singhbhum district of Bihar is the largest deposit of its kind in the world.

Airborne Mineral Surveys and Exploration

To accelerate the search for base metal deposits in the country, the Government of India launched two airborne geological surveys, namely, 'Operation Hardrock' and BRGM/CGG programme in 1967 and 1971 respectively.

The bulk of the data pertaining to 'Operation Hardrock' has been evaluated on the ground by the Airborne Mineral Surveys and Exploration Wing of the Geological Survey of India. As a result, detailed surveys are continuing on some prospects in Andhra Pradesh, Bihar-West Bengal and Rajasthan. The investigations so far have brought to light some prospects of base metal mineralisation in all the three operational areas.

Under BRGM/CGG programme, reconnaissance surveys have brought out a dozen promising prospects or detailed integrated surveys. Of these, seven prospects falling in Karnataka have been investigated in detail. Based on these, two prospects near Wolagere and Amble were subjected to probe drilling and have shown fairly continuous zones of sulphide mineralisation in the form of pyrite, pyrrhotite, and arsenopyrite disseminations.

Mineral Production

The value of mineral production has increased nearly seven times during the last two decades from Rs 82.3 crores in 1951 to Rs 543.5 crores in 1973. The share of fuels group was the largest, Rs 375.5 crores, followed by non-metallic minerals Rs 93.3 crores and metallic minerals Rs 74.8 crores. The data on the value of mineral production in India, excluding atomic minerals, for selected years since 1951 are given in Table 17.8 and quantity and value of mineral production (by minerals) during 1972 and 1973 in Table 17.9.

TABLE 17.8 VALUE OF MINERAL PRODUCTION

(*Rs crores*)

Year	1951	1961	1969	1970	1971	1972	1973
Value	82.3	181.2	466.2	488.3	505.7	542.6	543.5[1]

[1] Provisional; includes the value for ‘minor minerals’.

TABLE 17.9 QUANTITY AND VALUE OF MINERAL PRODUCTION

Mineral (unit)	Total Production			
	1972		1973	
	Quantity	Value (Rs ’000)	Quantity	Value (Rs ’000)
1	2	3	4	5
Total value of all minerals[1]		5,426,314		5,435,179
Fuels: (*total value*)		3,691,729		3,754,908
Coal (’000 tonnes)	75,658	2,754,621	77,088[2]	2,830,606[2]
Lignite ,,	3,067	1,12,174	3,303	1,20,812[3]
Natural gas[4] (crore cubic metres)	92.7	43,396	92.0	40,740
Petroleum (crude) (’000 tonnes)	7,373	7,81,538	7,196	7,62,750
Metallic minerals (*total value*)		7,39,281		7,47,574
Bauxite (’000 tonnes)	1,684	28,957	1,270	22,172
Chromite (tonnes)	2,94,500	35,636	2,77,224	29,713
Copper ore (’000 tonnes)	873	56,527[5]	1,093	63,256[5]
Diaspore (tonnes)	5,198	551	7,912	610
Gold[6] (kilograms)	3,290	87,458	3,320	90,015[3]
Iron ore (total) (’000 tonnes)	35,476	4,22,088	35,210	4,30,208
Lumps ,,	23,791	3,09,825	22,298	3,04,696
Fines[7] ,,	11,685	1,12,263	12,912	1,25,512
Lead concentrates (tonnes)	5,005	7,979	7,671	10,484
Manganese ore (’000 tonnes)	1,643	76,455	1,451	72,605
Silver[6] (kilograms)	4,427	2,221	4,255	2,426
Wolfram ,,	32,382	1,288	21,445	845
Zinc concentrates (tonnes)	17,055	20,121	23,913	25,240
Non-metallic minerals (*total value*)		9,95,304		9,32,697[8]
Agate (tonnes)	798	112	1,045	142
Apatite & rock phosphates				
Apatite (tonnes)	11,613	761	9,981	795
Phosphorite ,,	2,16,693	19,484	1,35,532	12,247
Asbestos ,,	12,359	2,935	11,727	3,247
Ball clay ,,	17,491	301	15,627	232
Barytes ,,	48,348	1,645	1,16,733	2,138
Calcite ,,	28,633	469	19,673	296
Chalk ,,	60,053	1,200	62,256	1,418
Clay (others) (’000 tonnes)	142	427	191	533
Corundum (tonnes)	391	205	268	144
Diamond (carats)	20,009	7,464	21,017	8,523
Diatomaceous earth (tonnes)	52	2	81	5
Dolomite (’000 tonnes)	1,348	25,792	1,393	22,949
Emerald (crude) (carats)	21,370	N.A.	3,195	N.A.
Emerald (dressed) ,,	3,800	2	N.A.	N.A.
Felspar (tonnes)	52,801	1,126	39,793	538
Fireclay[9] (’000 tonnes)	722	6,767	699	6,340
Fluorite (graded/sorted) (tonnes)	3,301	4,297	2,903	2,900
Garnet (abrasive) (tonnes)	3,236	314	2,815	137
Garnet (gem variety) (kilograms)	1,883	17	777	9
Graphite (tonnes)	19,366	4,642	15,098	1,275[10]
Gypsum (’000 tonnes)	1,105	13,463	880	9,846
Jaspar (tonnes)	409	14	494	16
Kaolin total (’000 tonnes)	405	14,570	351	14,760
Kaolin (natural) ,,	288	3,130	252	2,843
Kaolin (processed) ,,	117	11,440	99	11,917
Kyanite (tonnes)	67,897	9,767	52,732	9,637

TABLE 17.9

1	2	3	4	5
Limestone & other calcareous materials				
Limestone ('000 tonnes)	25,946	2,76,982	23,830	2,35,718
Lime shell ,,	101	2,156	84	1,776
Lime kankar ,,	338	1,968	331	2,157
Calcareous sand ,,	960	1,326	1,012	1,202
Magnesite ,,	251	11,329[10]	185	7,011
Mica (crude) (tonnes)	14,114	20,064	13,475	20,929
Mica (mine waste/scrap, etc.) (tonnes)	4,842	N.A.	4,692	N.A.
Ochre ,,	67,409	1,268	46,712	807
Pyrite ,,	30,723	5,764	41,507	8,302
Pyrophyllite ,,	15,086	419	14,063	432
Quartz & Silica				
Moulding sand ('000 tonnes)	63	320	67	301
Quartz ,,	231	2,427	192	1,850
Quartzite ,,	99	2,743	103	2,758
Sand (others) ,,	891	2,022	887	1,786
Salt (rock) (tonnes)	4,252	574	3,598	484
Sapphire (raw/unwashed) (kilograms)	85	N.A.	—	—
Silica sand (including glass sand) ('000 tonnes)	391	5,502	370	4,638
Sillimanite (tonnes)	4,046	708	2,950	1,135
Slate ,,	1,114	182	992	178
Staurolite ,,	3	2	1	1
Steatite ('000 tonnes)	211	6,824	191	6,195
Tourmaline (tonnes)	5	—	—	—
Vermiculite ,,	1,541	76	2,676	130
Wollastonite ,,	3,326	106	476	13

[1] Excludes the value of '*atomic minerals*'.
[2] Provisional.
[3] Estimated.
[4] Relates to gas utilised.
[5] Value of copper ore produced in Rajasthan and from Rakha mine in Bihar not included.
[6] Relates to metals only.
[7] Relates to despatches from mines for internal consumption/export. For Goa figures relate to output.
[8] Includes the estimated value of 'minor minerals'.
[9] Includes partly the production of fireclay incidentally recovered from the collieries.
[10] Under reference.
N.A.—Not available.

SOME ORGANISATIONS

Several public sector organisations are functioning in the country for the mapping and exploration of minerals, research and exploitation of minerals. Some of the organisation are described below.

Geological Survey of India

The Geological Survey of India (GSI), Calcutta, is the principal agency for mapping and exploration of minerals. During 1973-74, it covered an aggregate of over 28,000 sq. km in different parts of the country by systematic and detailed mapping.

Mineral Exploration Corporation

The Mineral Exploration Corporation (MEC) was formed in 1972 for detailed mineral exploration, a function performed by the Geological Survey of India.

Indian Bureau of Mines

The Indian Bureau of Mines was established in 1948. It carries out research on beneficiation of low grade ores and analysis of ores and minerals. Another important function is collection and publication of mineral information and statistics. It also assists the central government in the formulation of its mineral policy and carries out market surveys for mineral commodities in national and international markets. It provides technical consultancy services to the mining industry.

National Mineral Development Corporation Ltd.

The National Mineral Development Corporation Ltd. (NMDC), Hyderabad, was set up in 1958 for the exploration of minerals other than oil and natural gas and coal. The Corporation, which has been designed principally for the development of iron ore, is now a subsidiary of SAIL. The main schemes operated by the NMDC are: Kiriburu expansion scheme (Bihar and Orissa), Bailadila iron ore project (deposits 14 and 5) (Madhya Pradesh), Panna diamond mine project (Madhya Pradesh), Donimalai and Kudremukh iron ore projects in Karnataka.

The Kiriburu mine started production in 1964. It was developed originally to produce 20 lakh tonnes of iron ore for export to Japan. The total production up to 31 March 1974 was 197.60 lakh tonnes. The aggregate shipments to Japan up to 31 March 1974 was about 109 lakh tonnes, earning foreign exchange worth Rs 59.88 crores. The exports to Japan have now been stopped. The mine is being developed to produce 50 lakh tonnes of run-of-mine ore for the Bokaro steel plant. The Bailadila project (deposit 14), which started operations in 1968, has been developed for the production of 40 lakh tonnes of lump ore per annum for export to Japan. Production till 31 March 1974 was 202.41 lakh tonnes, of which 197.60 lakh tonnes were exported to Japan, earning foreign exchange worth Rs 140.21 crores. Bailadila (deposit 5) with a similar capacity is in the process of development. The Panna project produced 19,464 carats of diamonds during 1973-74, of which 12,356 carats were sold for Rs 51.11 lakhs. While the Donimalai project is being developed for the production of 17.5 lakh tonnes each of lumps and fines, initial work on exploitation of the magnetic iron ore deposits at Kudremukh has been taken in hand.

Bharat Aluminium Company Ltd.

The Bharat Aluminium Company Ltd., New Delhi, was set up in 1965 to implement two aluminium projects: (i) a 53,000-tonne per annum integrated aluminium project in the Ratnagiri area of Maharashtra, and (ii) a 1,00,000-tonne integrated aluminium project at Korba in Madhya Pradesh. The aluminium plant at Korba was commissioned in 1973. Preliminary work has also started on the Ratnagiri project. The plant is likely to be commissioned during the Sixth Plan.

Hindustan Copper Ltd.

The Hindustan Copper Ltd., Calcutta, is responsible for developing the copper deposits in the country. The projects of the company are the Khetri, Chandmari and Dariba copper projects in Rajasthan, Indian copper complex at Rakha in Bihar, Agnigundala copper-lead project in Andhra Pradesh and Malanjkhand copper project in Madhya Pradesh. The Khetri project is in an advanced stage of construction and some of the units have already been commissioned.

The Indian Copper Corporation, which was taken over by the central government in 1972 and merged with the Hindustan Copper Ltd., produced 12,899 tonnes of copper metal in 1973-74 as against 12,596 tonnes in 1972-73.

Bharat Gold Mines Ltd.

The Bharat Gold Mines Ltd., Gorgaum, Karnataka, took over the management of the Kolar Gold Mining Undertaking, a departmental undertaking, from 1 April 1972. Production of gold in 1973-74 was 18 lakh gm as compared to 20 lakh gm in 1972-73.

ZINC AND LEAD

There are at present two zinc smelters in the country, one operated by the Hindustan Zinc Ltd. in the public sector and the other by Cominco Binani Zinc Ltd. in the private sector. The public sector smelter is at Debari (Rajasthan) and the private sector smelter at Alwaye (Kerala). The total installed capacity of the two smelters is 38,000 tonnes per annum. An expansion programme of the zinc smelter at Debari is under way to increase its capacity from 18,000 to 45,000 tonnes per annum. A new zinc smelter is under construction at Visakhapatnam. It will also have a lead plant of 10,000 tonnes per annum.

There is only one lead smelter at Tundoo (Bihar) in the public sector which is based on the Zawar ore deposits. The smelter, which is being modernised, has a capacity of 3,600 tonnes per annum.

To develop zinc and other allied metals, the Hindustan Zinc Ltd., a central government undertaking, was set up in 1966 at Udaipur, Rajasthan. It is one of the only two zinc producers and the only producer of lead in the country. There are three constituent units of the undertaking, namely, (i) Zawar mines, Rajasthan, (ii) zinc smelter, Debari, Rajasthan and (iii) lead smelter, Tundoo (Bihar).

COAL

Coal mining was first started at Raniganj, West Bengal, in 1774. After Independence, coal mining was stepped up and in 1950 production was 320 lakh tons. In 1973-74, it reached a record figure of 779 lakh tonnes.

Nationalisation of Coal Mines

The Government of India nationalised the coking coal mines in 1972 and the non-coking coal mines in 1973. As a result, the production of coal in the country is now almost completely in the public sector. The only important mines which have not been nationalised are the captive coking coal mines of the two private sector steel companies.

The production of coal in the public sector is organised through three companies, namely, Coal Mines Authority Ltd., which includes its subsidiary the National Coal Development Corporation, the Bharat Coking Coal Ltd. and the Singareni Collieries Company Ltd. The Coal Mines Authority Ltd. has taken over the mines of the National Coal Development Corporation and the nationalised non-coking coal mines other than those in the Jharia coalfield. The Bharat Coking Coal operates the nationalised coking coal mines and the non-coking mines in the Jharia coalfield. The Singareni Collieries Company, a joint venture of the central and Andhra Pradesh governments, continues to work the coal mines in the Singareni coalfield of Andhra Pradesh.

Thirteen coal washeries are operating for the beneficiation of coking coal. One washery of Coal Mines Authority for blendable coal is ready for operation. There is also a small washery for non-coking coal. The total input capacity of the coking coal washeries is estimated at about 1.95 crore tonnes.

The Coal Board, which is a statutory body, promotes safety in coal mines and conservation of coal. The Board's other activities include stowing as well as protective works against fires and floods in mines. Five central ropeways constructed by the Board in the Jharia and Raniganj coalfields for transportation of sand from Damodar and Ajoy rivers to selected coal mines for stowing have been transferred to the Bharat Coking Coal Ltd. and the Coal Mines Authority after the nationalisation of coal mines.

Lignite

The integrated lignite project at Neyveli was set up during the Second Plan for mining 36 lakh tonnes of lignite per annum. The capacity of the project is being increased in the first instance to 45 lakh tonnes and ultimately to 65 lakh tonnes.

The quantity and value of coal and lignite produced during 1972 and 1973 are given in Table 17.9.

OIL

Exploration for petroleum and setting up of oil refineries were taken up in earnest only after Independence. Production of refined petroleum products, which was only 2 lakh tonnes in 1950-51, increased to 193 lakh tonnes in 1973. Production of crude oil in 1973 was about 72 lakh tonnes. About 134 lakh tonnes were imported to meet the country's requirements.

There are two principal organisations engaged in the exploration and production of crude oil in the country. They are the Oil and Natural Gas Commission, wholly owned by the Government of India, and the Oil India Ltd., a joint sector undertaking. A brief description of the two organisations is given below.

Oil and Natural Gas Commission

The Oil and Natural Gas Commission (ONGC) with headquarters at Dehra Dun, has been carrying out oil exploration since 1956. Its sphere of activities extend over the entire territory of India, except certain areas leased in the north-east of the country to Oil India Ltd. and Assam Oil Company, and covers off-shore areas. The number of wells drilled up to 28 February 1974 was 1,064. Of these, 553 were oil-bearing and 78 gas producing. The main oil fields are Ankleshwar, Nawagam, Kalol, Kosamba, Sanand, Kathana, Wavel, Barkrol, Dholka, Ahmadabad, Indore, Balol, Santhol, Mehsana, Sobhasan, Kadi and Dabka structures in Gujarat and Rudrasagar, Lakwa, Galeki, Borholla and Amguri structures in Assam. Production from ONGC oil fields during 1973-74 was about 40.31 lakh tonnes.

The Commission has also started oil exploration in the off-shore areas. In 1973, it began drilling for oil in the Bombay High structure in the deep waters off the western coast of the country with the help of 'Sagar Samrat', a self-propelled jack-up type of drilling platform.

ONGC also undertakes exploration for oil in foreign countries. At present, its subsidiary, Hydrocarbons India Private Ltd. (HIPL) is drilling for oil in an off-shore concession in Iran in partnership with three foreign companies. The share of HIPL is one-sixth of the oil produced. The ONGC has also secured a concession for oil exploration in Iraq.

Oil India Ltd.

Oil India Ltd., (OIL), in which the Government of India and the Burmah Oil Company have equal shares, was incorporated in Assam in 1959 for the exploration and production of crude oil (including natural gas) in a limited area of Assam and Arunachal Pradesh and for the construction of a pipeline to transport crude oil to the two public sector refineries at Gauhati and Barauni and the private sector refinery at Digboi.

The company had drilled 337 wells up to 31 December 1973. The production of crude oil from the oil fields managed by OIL was 31 lakh tonnes in 1973 and supplies to the three refineries amounted to over 30 lakh tonnes. The capacity of its pipeline is being expanded to feed more crude to the three refineries.

Refineries

There are nine refineries, five in the public sector and four in the private sector, in the country. Together, they processed 2.04 crore tonnes of crude in 1973; 1.14 crore tonnes in public sector and 90.31 lakh tonnes in private sector.

The private sector refineries have been set up at Digboi (Assam

Oil Company), Trombay (Esso), Trombay (Burmah-Shell) and Visakhapatnam (Caltex). The public sector refineries are at Gauhati, Barauni, Koyali, Cochin and Madras. The refineries at Gauhati and Barauni are owned by the Indian Oil Corporation, while Cochin and Madras are owned by two separate refinery companies.

A brief description of the public sector refineries is given below.

Gauhati

The refinery at Gauhati started operations in 1962. It has a capacity of 7.5 lakh tonnes. In 1973, it processed 7.71 lakh tonnes of crude oil.

Barauni

The refinery at Barauni has a capacity of 30 lakh tonnes per annum. It processed 26.59 lakh tonnes of crude in 1973.

Koyali

The Koyali refinery near Vadodara processes indigenous crude oil discovered in the Gujarat region. It refines 37 lakh tonnes per annum. The capacity of the refinery is being increased from 43 lakh tonnes to 73 lakh tonnes and the project is expected to be completed in 1977.

Madras

The Madras Refineries Ltd., a joint venture of the Government of India (owning majority shares), the National Iranian Oil Co. and Amoco, a subsidiary of the Pan American International Oil Co., have set up a refinery at Manali near Madras. The refinery, which commenced production in 1969, processed 25.05 lakh tonnes of crude oil in 1973.

Cochin

The Cochin Refineries Ltd., in which the Government of India holds majority shares and Phillips Petroleum Co. of the USA provides technical and financial collaboration, established an oil refinery with a capacity of 25 lakh tonnes per annum at Cochin in 1966. Its capacity has been increased to 33 lakh tonnes per annum. During 1973, the refinery processed 19.68 lakh tonnes of crude oil.

New Refinery Projects

A number of new refinery projects are in various stages of construction to meet the country's requirements. A description of the new projects is given below.

Haldia

A refinery with a capacity of 25 lakh tonnes per annum is under construction at Haldia in West Bengal. It is being set up by the Indian Oil Corporation with French and Rumanian collaboration. The project consists of two sectors, namely, the fuel sector and the lube sector.

Bongaigaon

A refinery with an annual capacity of 10 lakh tonnes is being established at Bongaigaon in Assam to process crude oil produced in the Assam fields by OIL and ONGC and transported through the existing Oil India pipeline from Naharkatiya. The capacity of the pipeline is being expanded to carry additional crude to the Bongaigaon refinery. The refinery is expected to go on stream in 1976.

Mathura

The biggest refinery in the country is being set up at Mathura in Uttar Pradesh with a capacity of 60 lakh tonnes per annum. Crude oil for the refinery, to be obtained through imports, will be received at a location in the Gulf of Kutch and transported across over a distance of 1,222 km by pipeline. The refinery is expected to be commissioned by 1978.

Pipelines

Prior to 1964, a pipeline had been constructed to transport the crude from the Naharkatiya oil fields to the Gauhati and Barauni refineries.

Since then, various multi-product pipelines have been laid. These are Gauhati-Siliguri pipeline, Koyali-Ahmadabad and Barauni-Kanpur pipelines, and the Barauni-Haldia-Mourigram pipeline. The Haldia-Baradabar-Mourigram section of the Haldia-Rajbandh product pipeline was commissioned in 1972 and the Mourigram-Rajbandh section in 1974. There is also a network of pipelines in Gujarat for transporting crude oil from the Gujarat oil fields to the Koyali refinery.

A 1,222 km pipeline is to be laid from Salaya in the Gulf of Kutch to Koyali and Mathura via Viramgram in Gujarat to supply imported crude to the expanded Koyali refinery and Mathura refinery. Imported crude will be received in an off-shore terminal, which is the first of its kind to be undertaken in the country. The off-shore terminal and the Salaya-Koyali sector of the pipeline is expected to be completed by 1976 and the Viramgram-Mathura sector by 1977.

Marketing and Distribution

Indian Oil Corporation

For distributing the products of the public sector refineries, except Esso which recently came into the public sector, the Indian Oil Corporation (IOC) was set up in 1964 by amalgamating Indian Refineries Ltd. and the Indian Oil Company Ltd. IOC has two divisions, namely, Refineries and Pipelines Division and Marketing Division. It is setting up a research and development centre at Faridabad, Haryana, at a cost of Rs 4.84 crores to develop lubricants and provide technical service to customers.

Total sales of the Corporation during 1973-74 were about 61.2 per cent of the total sales in the market. The number of retail outlets, which was 3,304 on 31 March 1973, rose to 3,483 on 31 March 1974. IOC is also marketing liquid petroleum gas (LPG) under the name 'Indane' in 143 cities.

For meeting the deficit of petroleum products in the country, the Indian Oil Corporation makes arrangements for imports. It also undertakes export of products. During 1973, the Corporation's imports of refined products were valued at Rs 93.95 crores, while its exports amounted to Rs 15.18 crores. The Corporation also acts as the government agency for canalised imports of base oils.

Indo-Burma Petroleum Company Ltd.

This company is the second public sector company in the country to market petroleum products. Formerly this was a subsidiary of the Indian Oil Corporation.

Bitumen Marketing Corporation

For marketing bitumen produced in the country, a new corporation known as the Bitumen Marketing Corporation was set up in the public sector in 1974. It will also promote the sales of bitumen in bulk in place of drums.

Lube India Ltd.

To meet the requirements of lube oil base stock, Lube India Ltd., a joint venture (50:50 basis) of the Government of India and Esso of USA, was formed in 1965. A lubricating oil plant at Trombay was established which commenced production in 1969. Production in 1973 was over 1,81,000 tonnes.

The Government of India and Esso Eastern Inc. USA signed an agreement on 14 March 1974 under which the two shareholders hold equity at 74:26 in this company. The company has been merged with Esso Standard Refining Company under a new company known as the Hindustan Petroleum Corporation Ltd.

Indian Oil Blending Ltd.

The Indian Oil Blending Ltd., a joint venture (50:50 basis) of IOC and Mobile Petroleum Co. Inc., New York, runs two lube blending plants in Bombay and Calcutta and a grease manufacturing plant in Bombay. Besides, the IOC has set up its own lube blending plant at Madras. It is also constructing a drum-making plant at Madras to cater to the production of lube and bitumen of the Madras refinery.

Lubrizol India Ltd.

To produce various chemical additives, a plant was set up in Bombay in 1965 by Lubrizol India Ltd., a joint venture of the Government of India and the Lubrizol Corporation of USA. During 1973, the production was 6,898 tonnes.

Engineering Consultancy

The Engineers India Ltd., New Delhi, was constituted in 1965 to provide engineering and consultancy services to government agencies and projects in the public and private sectors in the field of petroleum, petro-chemicals and fertilizers. It also competes for jobs in the international market. In association with an Italian firm, it has secured a contract in Iran (Shiraz refinery).

PLANTATION INDUSTRIES

Tea, coffee and rubber plantations together cover only about 0.4 per cent of the cropped area; yet tea is the second largest foreign exchange earner for the country. These industries, concentrated largely in the north-east and along the south-west coast, employ over 12 lakh workers.

TEA

The production of tea in 1973 was the highest ever recorded. It was 46.73 crore kg. The 1972 production was 45.25 crore kg. Export earnings from tea in 1973 (April-December) totalled Rs 149.4 crores as compared to Rs 154.5 crores during the corresponding period last year.

Instant Tea

During the past few years there has been an increase in the production and export of instant tea. In the five year period, 1966-70, production increased ten-fold from 30,354 kg in 1966 to 3.16 lakh kg in 1970. Foreign exchange earnings went up twenty times during the same period, from Rs 5.35 lakhs to Rs 105 lakhs. In terms of quantity, exports went up from 13,608 kg to nearly 3.20 lakh kg. However, during 1972, production declined to 2.38 lakh kg and exports to 2.30 lakh kg valued at Rs 71.24 lakhs.

The Tea Board, which is the principal agency for the development of the tea industry, is implementing a number of schemes to increase production. These include long-term loans to tea estates, provision of facilities for acquiring machinery on hire-purchase basis and grant of subsidy to the industry for replanting over-aged tea bushes. A Tea Trading Corporation at Calcutta has also been set up which markets Indian tea in consumer packs in certain selected countries.

COFFEE

Production of coffee during 1973-74 was about 90,000 tonnes, the same as in 1972-73. It comprised 50,000 tonnes of Arabica and 40,000 tonnes of Robusta. Total exports of coffee to quota and non-quota countries totalled 56,451 tonnes, an all time record, during the coffee year 1972-73 (October to September).

The Coffee Board, which is responsible for the development of coffee industry, has undertaken a coffee development plan to improve the yield and quantity of coffee. For this purpose, it advances loans to coffee growers. In 1973, Rs 97.37 lakhs were made available to planters.

CARDAMOM

India is the largest exporter of cardamom and accounts for 70 per cent of the world trade. Production in 1973-74 was about 2,950 tonnes as against 2,510 tonnes in 1972-73. Export earnings during 1973 (January to October) were valued at Rs 6.49 crores as against Rs 5.72 crores during the corresponding period of the previous year.

RUBBER

The output in 1973 (January to November) was 1,07,274 metric tonnes as against 95,046 metric tonnes during the same period in 1972. Owing to increased indigenous availability of rubber, the Government of India banned the import of natural rubber during 1973-74.

The Rubber Board assists the industry in its problems and decides on major issues pertaining to it. It introduced a replanting subsidy scheme in 1957, under which Rs 6.62 crores were granted as subsidy up to 31 January 1974.

Synthetic Rubber

A factory has been set up at Bareilly for producing synthetic rubber. Production in 1973 (January to November) was 19,447 metric tonnes as against 26,648 metric tonnes during the same period in 1972.

VILLAGE AND SMALL INDUSTRIES

Although there has been an impressive development of large-scale industries during the two decades of planned development, India still remains predominantly a country of village and small industries. About two crore persons are engaged in these industries, of whom nearly 50 lakhs work in the handloom industries, *i.e.,* more than the total number of persons employed in the organised industries and mining put together.

The small-scale and village industries sector covers a wide range of traditional and modern small-scale industries including handloom, khadi, powerloom, sericulture, coir, handicrafts, village industries and mechanised small-scale industries (with a capital investment not exceeding Rs 7.5 lakhs in plant and machinery and Rs 10 lakhs for ancillary units manufacturing parts and components).

Development

Long before the Industrial Revolution in the West, India was known as the industrial workshop of the world. Indian textiles, calicoes, muslins and metalware were prized abroad. Under the British rule, however, these flourishing industries suffered rapid decay for they had to make room for the mass-produced British goods.

It was after Independence that action was initiated to solve their age-old problems, such as, lack of credit facilities, outmoded methods and techniques, absence of organised marketing, unsatisfactory arrangements for the supply of raw materials and competition from large-scale units. The union government set up a number of agencies to help the village and small industries. These include the Small Scale Industries Board, the Khadi and Village Industries Commission, the All India Handicrafts Board, the All India Handloom Board, the Coir Board and the Central Silk Board. Apart from this, credit facilities are made available to these industries through a number of institutions. Industrial estates and rural industrial projects have been set up and industrial co-operatives have been organised. State Directorates of Industries and other agencies are responsible for their development in the states.

To determine the requirement of the small-scale sector for framing suitable policy for further development, a nation-wide census of the small sector is under way.

Expenditure under Plans

During the first three Plans, Rs 458.76 crores were spent by the central and state governments for the development of village and small industries. The expenditure during the Annual Plans (1966-69) was Rs 132.55 crores. In the Fourth Plan, the expenditure (estimated) was Rs 250 crores as against the outlay of Rs 293 crores. The Fifth Plan outlay for the development of these industries is Rs 611.12 crores. In addition, about Rs 1,050 crores are expected to be invested from private sources, including banking and financial institutions, as against Rs 560 crores envisaged under the Fourth Plan.

SMALL-SCALE INDUSTRIES

The number of small-scale units registered on a voluntary basis with the industries directorates of different states and union territories went up from 36,000 in 1961 to about 4.09 lakhs on 31 December 1973. According to an assessment, small-scale units covered under the programme of Small Industries Development Organisation were providing employment to 45 lakh workers in 1973. Their fixed investment during the same year was estimated at Rs 814 crores and their output was worth Rs 6,249 crores. Apart from the quantitative growth, there has also been a significant increase in the variety of products manufactured by these units. Small-scale units are now producing sophisticated items for the defence services, railways and the P and T Department. They also supply parts and components to large-scale industries engaged in the manufacture of machine tools, bicycles, automobiles, electrical appliances and machinery. To encourage the small-scale sector, the central government have reserved 177 items for exclusive production in this sector.

Credit Facilities

Small-scale sector is included in the priority sector for the supply of institutional credit. It receives financial assistance from state governments, State Financial Corporations and banking institutions. The total credit extended by the scheduled commercial banks to the small-scale industries by 30 September 1973 amounted to Rs 750 crores in terms of amounts outstanding and covered 1,82,951 units as against Rs 595 crores to 1,31,984 units in September 1972. In terms of the percentage of advances of bank credits, the share of small-scale industries went up from 7.7 per cent in 1969 to 11.9 per cent in 1973. The loans sanctioned by State Financial Corporations amounted to Rs 209 crores on 30 September 1973 as against Rs 162 crores on 30 September 1972. The Credit Guarantee Scheme, as modified in 1970, has made a substantial contribution to the volume of outstanding and actual advances. The scheme is now being availed of by 195 credit institutions including all major commercial banks, State Financial Corporations and 103 co-operative banks. The International Development Association also sanctioned a line of credit for $2.5 crores for medium and small-scale industries for the purchase of equipment and spare parts in foreign countries.

Allocation of Raw Materials

The small-scale sector gets priority in the allocation of raw materials. The total value of import licences issued to this sector for the import of raw materials, components and spares during 1973-74 was Rs 83 crores as compared to Rs 86 crores in 1972-73.

Industrial Co-operatives

At the end of the Second Plan, there were 33,266 industrial co-operative societies. The number of such co-operative societies in 1973-74 was about 48,800 with a membership of 41.7 lakhs and a working capital of Rs 788 crores.

The National Federation of Industrial Co-operatives was registered in 1966 to develop the export and wholesale marketing of products of industrial co-operatives.

Small Industries Development Organisation

Technical advice and assistance to small-scale manufacturers is provided by the Small Industries Development Organisation through its network of 16 service institutes, 16 branch institutes, 55 extension, production and training centres. The organisation also provides common service and tool room facilities in workshops attached to small industries service institutes and extension centres. It conducts courses in management and technical disciplines. During 1972-73, it provided technical assistance to 1,00,413 entrepreneurs and assisted 3,76,650 persons in the selection of new industries.

National Small Industries Corporation

The National Small Industries Corporation, which was set up in 1955, operates the scheme of procuring machinery for small-scale manufacturers on a hire-purchase basis on concessional terms. The value of machines delivered under this scheme was over Rs 9.15 crores during 1972-73 and Rs 4.08 crores in 1973-74 (up to December 1973). It also assists the small-scale sector in processing orders from government departments and agencies. The value of such orders secured was Rs 28.50 crores in 1973-74 (up to December 1973) as against Rs 37.85 crores in 1972-73. The Prototype Development and Training Centres set up with American, West German and Japanese assistance at Rajkot, Okhla and Howrah impart training to persons engaged in small-scale industries.

Industrial Estates

Several industrial estates have been set up all over the country to accommodate small industrial units in more congenial atmosphere where various common facilities are provided for their smooth working. The number of sponsored industrial estates on 31 March 1973 was 585. Up to March 1973, 12,050 industrial sheds had been constructed. The factories located in these sheds produced goods worth Rs 253 crores during 1972-73 and provided employment to over 1,30,000 workers.

Rural Industries Projects

A centrally-sponsored scheme for rural industries projects was taken up in 1962-63. Its main object is to evolve techniques for establishing viable industrial units in rather inhospitable rural environments. Another aim is to reduce the disparities in the levels of development between different regions. To start with, 45 areas were selected in the states and some union territories, each covering three to five development blocks with a population of 3 to 5 lakhs for intensive development of small industries in rural areas. Nine more areas were added later. More than 38,000 industrial units had been set up by March 1973 with an investment of Rs 38 crores. The value of production during 1972-73 was about Rs 45 crores, providing employment to 1,60,000 persons. Fifty-seven projects have been selected for the Fifth Five Year Plan in addition to the 54 projects already taken up for implementation.

Strategy in the Fifth Plan

The strategy of the programme for the development of different small industries in the Fifth Plan will be (i) to generate maximum opportunities for employment, particularly self-employment; (ii) facilitate fuller utilisation of the skills and equipment of the persons engaged in these industries; (iii) progressively improve the production techniques and make these industries viable; and (iv) promote these industries in semi-urban and rural areas including backward areas.

HANDLOOMS AND POWERLOOMS

The handloom industry ranks in importance next only to agriculture in employment potential. There are about 30 lakh handlooms, half of these in the co-operative sector. About 70 to 80 lakh persons depend on this industry for their livelihood. Powerloom industry is of recent growth. The number of powerlooms in the country stood at a little over 3 lakhs on 31 December 1972.

The targets of production for the decentralised sector (comprising handlooms and powerlooms) was stepped up from 157 crore metres in 1950-51 to 425 crore metres by 1973-74. The achievement on 31 March 1974 was about 370 crore metres. A target of 480 crore metres—300 crore metres for handlooms and 180 crore metres for powerlooms—has been fixed for the Fifth Plan period. This will be about 50 per cent of the total requirement of cloth in the country.

The handloom industry has achieved an important position in exports, which increased from Rs 11.60 crores in 1967-68 to about Rs 48.46 crores in 1973-74.

HANDICRAFTS

Handicrafts include a large number of crafts which are backed by centuries of experience and skill. The present production of handicrafts (including gem and jewellery) is Rs 400 crores and is expected to reach Rs 600 crores by the end of the Fifth Five Year Plan. As a result of the various development and export promotion efforts, exports picked up from Rs 22.18 crores in 1967-68 to about Rs 60.30 crores in 1973-74. A target of Rs 110 crores has been fixed for the Fifth Five Year Plan.

In addition to its contribution to exports, the handicrafts sector employs 14 lakh workers. The number is expected to reach 18 lakhs by the end of the Fifth Plan. To promote the development of handicrafts, an allocation of Rs 8 crores has been made in the central sector for the Fifth Plan, of which Rs 1.07 crores has been provided for 1974-75.

To increase the production and exports of handicrafts, an All India Handicrafts Board was set up at New Delhi in 1952. It has five regional offices in Bombay, Calcutta, Delhi, Lucknow, Madras and New Delhi. A Central Handicrafts Development Centre at Bangalore and a Central Crafts Museum at Delhi have also been set up by the Board. For marketing of handicrafts, about 250 emporia have been set up all over India by the central and state governments and administrations of union territories.

COIR

The coir industry, essentially export oriented, is primarily a cottage industry, though some factories employ wooden looms worked by manual labour. The industry employs about 5 lakh people directly. Of the estimated annual production of 1.38 lakh tonnes of coir yarn, more than 90 per cent is produced in Kerala. Production of coir fibre is now estimated at 1,61,000 tonnes, that of coir products at 26,000 tonnes and of coir rope 21,000 tonnes. The value of exports of coir yarn and products has steadily increased from Rs 8.7 crores in 1960-61 to Rs 15.5 crores in 1973-74.

The Coir Board, a statutory organisation set up by the central government, promotes the development of coir industry.

SILK

About 28 lakh kg of silk yarn of all varieties and about 12 lakh kg of silk waste valued at about Rs 40 crores are produced annually in the country. Nearly two-thirds of this is produced in Karnataka, followed in order of importance by West Bengal, Assam, Jammu and Kashmir, Bihar and Madhya Pradesh. There are about 1.25 lakh handlooms and about 3,500 powerlooms engaged in the production of natural silk weaving. The number of persons to whom sericulture provides part or full-time employment is over 32 lakhs. The value of exports of silk textiles and waste in 1972-73 was Rs 9.2 crores as against Rs 7.6 crores in 1971-72.

The Central Silk Board, established in 1949, is responsible for the development of silk and sericulture industry and co-ordinates research.

KHADI AND VILLAGE INDUSTRIES

Khadi and village industries depend on local raw materials and mainly cater to the requirements of the local population. Some of the important industries under this category are the processing of cereals and pulses, village oil, gur and khandsari, palm gur, non-edible oils and soap, bee-keeping, handmade paper, village pottery, carpentry and black-smithy. The Khadi and Village Industries Commission is responsible for the development of these industries. It provides financial assistance to registered institutional co-operative societies, State Khadi and Village Industries Boards and 22 other village industries which come within its purview. The Commission disbursed Rs 22.01 crores to various agencies implementing its programmes in 1972-73 as against Rs 21.45 crores in 1971-72.

The development programme of the khadi and village industries in 1972-73 showed improvement over last year, both in production and employment. Production was worth Rs 132.83 crores in 1972-73 as against Rs 121.39 crores in the previous year. Of this, Khadi accounted for Rs 31.07 crores, village oil Rs 28.00 crores, gur and khandsari Rs 26.77 crores, processing of cereals and pulses Rs 18.50 crores, village leather Rs 7.99 crores and palm gur Rs 6.20 crores.

During 1972-73, these industries provided employment to 17.04 lakh persons. Of the total employment, Khadi accounted for a little more than a half.

18 COMMERCE

EXTERNAL TRADE

Until 1947 India had a pattern of trade which was traditionally that of a colonial and agricultural country. The bulk of her foreign trade was confined to Britain and other Commonwealth countries. While exports were based on a few primary commodities, imports were restricted and consisted mainly of manufactured articles. Though, on the surface, there was a favourable balance of trade, it concealed a low level of industrial production and economic development.

With the impressive industrial development since Independence, India's foreign trade has undergone a complete metamorphosis and is no longer confined to a few countries. She, now, has trading links with practically all the countries of the world. The items on the export list today number about three thousand as against fifty at the time of Independence.

Similarly, there has been a great increase in imports on account of the development needs of the economy. The composition of imports has, naturally, undergone a great change. The bulk of the imports now consist of sophisticated machines, scarce raw materials, lubricants and oils and fertilizers which are essential for the country's industrial and agricultural development. The country has had an adverse balance of trade mainly on account of heavy imports necessary for its development.

VALUE OF FOREIGN TRADE

The total value of foreign trade (imports plus exports including re-exports) during 1973-74 was Rs 5,404 crores as compared to Rs 3,838 crores in 1972-73. The value of imports and exports, the total value of foreign trade and the balance of trade for selected years since 1950-51 are given in Table 18.1.

The adverse balance of trade, which had been widening since 1956 owing to an increase in imports needed to meet the requirements of development and a relatively slower growth of exports, showed a generally upward tendency till 1966-67. This trend was reversed in 1967-68, and in the subsequent years up to 1970-71 there was a sharp decline in the country's trade deficit. But again there was a substantial increase in imports during 1971-72 resulting in a fairly heavy deficit in the balance of trade that year. In 1972-73, however, as a result of a decline in imports and an appreciable increase in exports, the balance of trade turned into a favourable one for the first time during the last 25 years. During 1973-74, exports increased by 26 per cent but imports also went up by 56 per cent resulting in an adverse balance of trade amounting to Rs 438 crores.

BALANCE OF PAYMENTS

Tables 18.2 and 18.3 show India's balance of payments position on current and capital accounts respectively in 1970-71, 1971-72 and April-June 1972.

PATTERN OF TRADE

EXPORTS

Exports, which had been more or less stagnant during the decade 1951-60, averaging a little over Rs 600 crores per annum, started increasing

TABLE 18.1
FOREIGN TRADE OF INDIA

(*Rs crores*)

Year		Imports	Exports (including re-exports)	Total value of foreign trade	Balance of trade
1950-51	..	650.21	600.64	1,250.85	— 49.57
1955-56	..	678.84	596.32	1,275.16	— 82.52
1960-61	..	1,139.69	660.22	1,799.91	—479.47
1965-66	..	1,408.53	805.64	2,214.17	—602.89
1966-67	..	2,078.36	1,156.56	3,234.92	—921.80
1967-68	..	2,007.61	1,198.69	3,206.30	—808.92
1968-69	..	1,908.63	1,357.87	3,266.50	—550.76
1969-70	..	1,582.10	1,413.28	2,995.38	—168.82
1970-71	..	1,634.20	1,535.16	3,169.36	— 99.04
1971-72	..	1,824.54	1,608.22	3,432.76	—216.32
1972-73	..	1,867.44	1,970.83	3,838.27	+103.39
1973-74	..	2,920.91	2,483.22	5,404.13	—437.69

Note I: The export figures from November 1970 onwards are based on the original copy of the shipping bill after an adjustment made for short and shut out shipment returns received during the period. As such, these are not comparable to the export figures for a period prior to October 1970 which were based on the finally passed shipping bills. The method of compilation of export statistics was changed again in April 1973. As a result, the export figures from April 1973 onwards are based on finally passed shipping bills.

Note II: (1) The data cover trade by sea, air and land. Figures of trade with Sikkim and Bhutan are not included. Land-borne trade with Nepal and export of items through parcel post as well as the trade of Goa, Daman and Diu was included from 1962-63 onwards, and the trade of Andaman and Nicobar Islands from April 1963. (2) Transhipment trade and ships stores are excluded. From 1957, direct transit trade (trade of adjacent countries passing in transit through Indian ports but through bills of lading) is excluded, but indirect transit trade (goods previously imported but kept in ware-houses and afterwards re-exported) is included first under imports and thereafter under re-exports. (3) Besides merchandise trade, trade in treasure—gold and silver—has been included. From 1957, silver is covered under merchandise. (4) The import figures exclude certain consignments of foodgrains and government stores awaiting adjustment. (5) While exports are valued on f.o.b./f.o.r. basis inclusive of export duty and other charges payable at the time of export, imports are valued on c.i.f. basis and are exclusive of import duty. (6) The above figures differ from those published earlier because of corrections relating to (i) short shipments and shut out shipments in the case of exports, and (ii) final adjustments in transactions of government imports.

between 1961 and 1966. On 31 March 1966, exports stood at about Rs 806 crores. There has been an impressive increase in exports since then. In 1973-74, exports totalled Rs 2,483.2 crores.

The exports have not only gone up, they have also witnessed an increasing diversification in recent years. The increase has been well spread over a number of commodities. Among the important items, exports of cotton manufactures went up from Rs 48.2 crores in 1961-62 to Rs 126.7 crores in 1972-73, iron ore and concentrates from Rs 17.4 crores to Rs 109.78 crores, unmanufactured tobacco from Rs 14.1 crores to Rs 61.1 crores and iron and steel from Rs 9.7 crores to Rs 41.8 crores. Exports of jute manufactures reached the level of Rs 247.2 crores in 1972-73 after witnessing a declining trend from 1967-68 to 1970-71. However, exports of tea which reached an all time high of Rs 180 crores in 1967-68 have been declining since then. There was only a partial recovery in 1970-71 and in 1971-72 when tea exports amounted to Rs 148.2 crores and Rs 156.3 crores respectively. Table 18.4 gives the principal items of exports for 1950-51 and 1965-66 to 1972-73.

Exports in 1973-74

During April-December 1973, there was an appreciable increase in the exports of oil cakes (Rs 79.3 crores), mill made cotton piecegoods

TABLE 18.2

Balance of Payments: Current Account

(*Rs crores*)

Item	1970-71 (Preliminary)			1971-72 (Preliminary)			1972 April-June (Preliminary)		
	Credits	Debits	Net	Credits	Debits	Net	Credits	Debits	Net
1. Merchandise[1]									
(i) Private	1,401.7	646.2	+755.5	1,551.2	773.8	+777.4	440.3	181.2	+259.1
(ii) Government	1.0	1,074.2	—1,073.2	4.2	1,219.8	—1,215.6	3.4	249.5	—246.1
2. Non-monetary gold movement	13.1	—	+13.1	—	—	—	—	—	—
3. Foreign travel[2]	27.9[9]	17.8	+10.1	31.5[9]	19.5	+12.0	7.9[9]	4.7	+3.2
4. Transportation[3]	106.5	78.4	+28.1	111.7	68.3	+43.4	30.2	17.1	+13.1
5. Insurance[3]	11.7	12.2	—0.5	13.5	18.5	+5.0	3.7	2.9	+0.8
6. Investment income[4]	48.5	274.2	—225.7	35.0	262.4	—227.4	6.0	66.5	—60.5
7. Government not included elsewhere[5]	30.1	23.0	+7.1	29.0	24.0	+5.0	10.8	5.5	+5.3
8. Miscellaneous[6]	55.4	77.6	—22.2	52.4	80.4	—28.0	11.0	15.3	—4.3
9. Transfer payments									
(i) Official[7]	59.5	6.4	+53.1	92.8	18.3	+74.5	5.0	6.8	—1.8
(ii) Private[8]	136.4	13.2	+123.2	174.5	12.3	+162.2	33.0	3.3	+29.7
10. Total current transactions	1,891.8	2,223.2	—331.4	2,095.8	2,497.3	—401.5	551.3	552.8	—1.5
11. Errors and omissions	—	—	—78.7	—	—	—65.2	—	—	—52.7

Note: The figures are based on exchange control data and are not comparable with those published by the Directorate-General of Commercial Intelligence and Statistics. For factors causing discrepancies, see 'India 1966', p. 326. The rupee equivalent of all foreign currency transactions has been arrived at by using the current exchange rates. All transactions relating to Goa, Daman and Diu are included.

[1] Exports f.o.b.; imports c.i.f. The data on government imports exclude freight on PL-480 imports initially borne by India but subsequently refunded by US authorities. [2] Data for receipts are incomplete. [3] Receipts cover estimated amounts for reimbursements of freight and insurance paid in advance by exporters and disbursements of foreign ships in Indian ports, etc., and payments include operating expenses abroad of Indian steamship companies and some freight and insurance payments. [4] Receipts include interest on investments of the Reserve Bank of India. [5] The payment figure represents disbursements of the government, for example, for the upkeep of its organisations abroad. [6] Covers receipts and payments mainly for services. [7] Represents contra-entries for imports financed by aid received under the Colombo Plan and Indo-American Technical Co-operation Agreement receipts of cash grants mainly from the Ford Foundation and receipts and payments of pensions on government account and contributions to international organisations. [8] Comprises unilateral transfers like maintenance remittances, receipts of missionaries, remittances of savings, migrants transfers, etc., and receipts and payments of pensions, retirement benefits, etc., on private account. [9] Provisional estimates.

TABLE 18.3

BALANCE OF PAYMENTS: CAPITAL ACCOUNT

(*Rs crores*)

Item	1970-71 (Preliminary)			1971-72 (Preliminary)			1972 April-June (Preliminary)		
	Credits	Debits	Net	Credits	Debits	Net	Credits	Debits	Net
1. Private[1]	40.0	70.4	— 30.4	53.4	57.7	— 4.3	16.4	17.3	— 0.9
(i) Long-term	38.8	68.2	— 29.4	52.6	55.4	— 2.8	16.1	16.8	— 0.7
(ii) Short-term	1.2	2.2	— 1.0	0.8	2.3	— 1.5	0.3	0.5	— 0.2
2. Banking[2]	43.7	51.4	— 7.7	54.5	45.1	+ 9.4	20.1	18.0	+ 2.1
3. Official[3]	1,367.6	919.4	+448.2	1,131.7	670.1	+461.6	171.0	118.0	+ 53.0
(i) Loans[4]	658.9	157.2	+501.7	626.7	10.8	+615.9	116.2	0.2	+116.0
(ii) Amortisation[5]	2.3	190.5	—188.2	3.1	213.2	—210.1	—	51.2	— 51.2
(iii) Miscellaneous[6]	386.8	340.8	+ 46.0	307.1	152.8	+154.3	34.4	49.8	— 15.4
(iv) Reserves[7]	319.6	230.9	+ 88.7	194.8	293.3	— 98.5	20.4	16.8	+ 3.8
Total capital and monetary gold ..	1,451.3	1,041.2	+410.1	1,239.6	772.9	+466.7	207.5	153.3	+ 54.2

Note: The rupee equivalent of all foreign currency transactions has been arrived at by using the current exchange rates.

[1] Non-banking includes drawings and repayments on account of IBRD loans and other foreign government loans to private sector in India. [2] Excluding RBI. [3] Including RBI. [4] Credits represent utilisation of various foreign loans and credits obtained by the official sector from the IBRD, IDA and foreign governments, as well as rupee loans out of PL 480 and PL 665 counterpart funds, and drawings from the IMF. Debit entries relate to the repurchase of rupees from the IMF. [5] Entries relate mainly to repayments of loans from the IBRD and from foreign governments, capital withdrawals and disbursements relating to the Pension Annuity arrangements under the Indo-UK Financial Agreement of July 1948, capital repayments by the UK of excess pension fund under the Pension Resettlement Arrangements of March 1965, repayment of partition debt by Burma and repayments of the loan extended to Burma in 1957. [6] Covers capital receipts and payments on official account other than loans and amortisation transactions. [7] Represents changes in the foreign exchange assets of the RBI and the Government of India and the gold holdings of the former and SDR holdings of the latter.

TABLE 18.4

Exports of Principal Commodities (By Sea, Air and Land)

(*Rs lakhs*)

Commodity	1950-51	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Jute manufactures (excluding twist and yarn)	11,277	18,162	24,900	23,353	21,694	21,496	18,917	26,329	24,720
Tea	7,989	11,484	15,841	18,022	15,651	12,450	14,825	15,631	14,729
Cotton manufactures (excluding twist and yarn)	11,944	6,329	7,560	7,944	8,797	8,663	9,747	10,005	12,671
Textile fabrics (other than cotton and jute)..	461	742	623	614	954	1,092	1,213	1,359	1,558
Textile articles (other than cotton and jute mfrs, woollen carpets, carpeting floor rugs and mattings)	837	458	668	576	631	707	720	1,105	1,027
Textile yarn and thread	2,564	1,507	2,036	1,612	2,430	4,092	3,448	2,812	3,710
Ores of non-ferrous base metals and concentrates		1,154	1,624	1,299	1,622	1,471	1,749	1,409	1,474
Leather	2,577	2,821	6,185	5,322	7,199	8,053	7,159	9,014	17,045
Raw cotton (excluding linters and waste) ..	494	1,039	1,193	1,475	1,574	1,469	1,395	1,664	2,158
Fresh fruits and nuts (excluding oilnuts) ..	1,095	2,924	4,819	4,506	6,477	5,999	5,441	6,347	7,271
Crude vegetable materials, inedible[1] ..	1,361	1,678	2,287	1,914	2,166	2,576	3,402	3,762	3,956
Raw wool	787	643	674	565	487	413	411	342	597
Sugar (including molasses)	17	1,119	1,814	1,644	1,046	884	2,930	3,103	1,377
Iron ore and concentrates	22	4,237	7,019	7,478	8,840	9,462	11,728	10,470	10,979
Tobacco, unmanufactured	1,411	1,957	2,152	3,485	3,316	3,271	3,140	4,225	6,107
Vegetable oils (non-essential)	2,526	409	283	396	1,171	495	703	757	2,549
Crude minerals (excluding coal, petroleum,.. fertilizer materials and precious stones) ..	negl.	1,461	1,878	1,968	1,858	2,188	2,230	2,105	2,349
Woollen carpets, carpeting floor rugs and mattings	556	448	801	945	1,065	1,099	996	1,271	2,020
Iron and steel	287	1,238	2,469	5,483	7,893	8,679	9,062	4,037	4,176
Coffee	135	1,294	1,584	1,818	1,796	1,962	2,511	2,207	3,293
Hides and skins, undressed	956	945	1,609	739	504	831	377	63	83
Petroleum products	3	646	1,030	732	943	742	856	884	1,318
Coal, coke and briquettes	336	286	236	183	267	205	401	107	316
TOTAL (including other items) ..	60,064	80,564	1,15,656	1,19,869	1,35,787	1,41,328	1,53,516	1,60,822	1,97,083

[1] Nowhere else stated in trade classification list.

Note: The export figures from November 1970 onwards are based on the original copy of the shipping bill after an adjustment made for short and shut out shipment returns received during the period. As such, these are not comparable to the export figures for a period prior to October 1970 which were based on the finally passed shipping bills.

(Rs 51.9 crores), fish (Rs 19.7 crores), apparel and handloom piecegoods (Rs 28.8 crores), engineering goods (Rs 18.2 crores), coffee (Rs 15.2 crores), sugar (Rs 12.0 crores), castor oil (Rs 10.2 crores), art silk fabrics (Rs 9.7 crores) and pepper (Rs 8.2 crores). There was a moderate increase in the export of cashew kernels, iron ore, iron and steel, groundnuts, chemicals and allied products, pearls and precious stones, lac, wood lumber and cork and plastic manufactures. The items to register a sharp decline were jute goods (Rs 9.4 crores), tea (Rs 4.6 crores), cotton yarn (Rs 9.8 crores) and mica (Rs 4.9 crores).

A brief review covering some of the important items is given below.

Jute Manufactures

During the past few years, exports of Indian jute goods have been losing ground in the world markets primarily due to keen competition from synthetic substitutes and supplies from Bangladesh. During April-December 1973, exports of jute goods declined to Rs 183.8 crores from Rs 193.2 crores during the corresponding period of the preceding year.

A Jute Corporation was set up in 1971 to stabilise prices of raw jute at remunerative levels and to market jute goods abroad.

Tea

Exports of tea during April-December 1973 declined to 14.94 crore kg valued at Rs 115.5 crores from 15.45 crore kg valued at Rs 120.1 crores during the corresponding period of the previous year.

A Tea Trading Corporation was set up in 1971 to promote exports of packaged tea.

Cotton Textiles

Exports of cotton textiles are subject to quantitative restrictions imposed by a number of industrial countries. This has restricted the scope for increase in exports. However, India has been able to secure a larger quota from countries of the European Economic Community and their offtake is expected to improve.

During April-December 1973, exports of cotton piecegoods at Rs 111.7 crores revealed an increase of Rs 51.9 crores compared with the corresponding period of the preceding year.

Exports of cotton yarn at Rs 7.3 crores were lower by Rs 9.8 crores compared to the corresponding period of the preceding year. Exports of cotton apparel at Rs 37.6 crores were higher by Rs 18.8 crores compared to the corresponding period of the preceding year. Similarly, exports of handloom piecegoods improved by Rs 10 crores to Rs 21.6 crores.

Unmanufactured Tobacco

The increasing trend in the exports of unmanufactured tobacco continued during April-December 1973. Exports improved by Rs 72 lakhs to Rs 51.0 crores, notwithstanding the reduced quantity exported. This was on account of higher unit value realisation.

A Tobacco Marketing Board is being set up to deal with the problems of production and marketing of flue-cured tobacco.

Fruits, Vegetables and Pulses

Exports of fruits, vegetables and pulses during April-December 1973 amounting to Rs 73.0 crores were higher by Rs 9.9 crores compared with the preceding corresponding period. The main item under this group is cashew kernels, export of which amounted to Rs 63.0 crores as compared to Rs 56.5 crores in the corresponding preceding period. Because of a shortfall in domestic production, exports of onions and pulses could not be maintained at the earlier levels.

Engineering Goods

Exports of engineering goods increased to Rs 121.7 crores during April-December 1973 as against Rs 103.5 crores during the corresponding preceding period. The range of engineering goods exported not only showed a fair measure of diversification and specialisation, but some of the products also found their way to developed countries.

Iron Ore

Exports of iron ore increased both in quantity and value. They amounted to 159 lakh tonnes valued at Rs 89.0 crores during April-December 1973 against 153 lakh tonnes valued at Rs 80.1 crores during the corresponding preceding period.

Iron and Steel

Exports of iron and steel during April-December 1973 were valued at Rs 20.6 crores recording an increase of Rs 5.2 crores over the same period of the preceding year.

Leather and Leather Manufactures

Exports of leather and leather manufactures (excluding footwear) at Rs 122.9 crores during April-December 1973 recorded an increase of Rs 8.2 crores over the corresponding preceding period. Finished leather and tanned chrome registered increases; the increase in the exports of leather being quite marked at Rs 20 crores.

Fish

Exports of fish at Rs 60.2 crores during April-December 1973 recorded an increase of Rs 19.7 crores over the corresponding period of the previous year. The unit value realised from the export of fish also registered an increase. It was Rs 18,245.46 per tonne during April-December 1973 against Rs 15,576.93 per tonne during the corresponding period of last year.

Coffee

Exports of coffee during April-December 1973 at Rs 38.0 crores registered an impressive increase of Rs 15.2 crores over the corresponding period of the previous year. The increase was on account of both a rise in the unit value realised and an increase in quantity exported.

India's exports of coffee till recently were regulated in terms of the International Coffee Agreement to which she is a signatory. This restricted the scope for increasing exports to the traditional markets. From 1 October 1973, the operation of the quota and price clauses of the International Coffee Agreement have been suspended. The Coffee Board has undertaken a programme to popularise the use of coffee in non-traditional markets.

Oilcakes

Exports of oilcakes at Rs 120.3 crores nearly trebled. There was also an increase in quantity exported by about two lakh tonnes. The unit value realised during April-December 1973 increased from Rs 616.96 to Rs 1,409.25 per tonne.

Petroleum Products

Exports of petroleum products registered a slight decline from Rs 10.0 crores to Rs 8.2 crores during April-December 1973.

Handicrafts

Exports of pearls, precious and semi-precious stones, unworked and worked, improved from Rs 54.3 crores in April-December 1972 to Rs 65.4 crores during April-December 1973. This increase was made possible because of favourable market conditions abroad, particularly in the USA. An appreciable increase of Rs 4.1 crores was also recorded in the exports of handmade carpets and druggets which amounted to Rs 18.3 crores. Moderate increases were recorded in the exports of metal artware and wood-ware.

TABLE 18.5

IMPORTS OF PRINCIPAL COMMODITIES (BY SEA, AIR AND LAND)

(*Rs lakhs*)

Commodity	1950-51	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Iron and steel	1,431	9,800	9,790	10,629	8,620	8,151	14,704	23,760	22,518
Machinery other than electric	6,676	32,244	40,800	35,656	36,582	28,035	25,781	27,086	29,793
Petroleum products	5,427	3,335	2,703	1,510	3,718	4,124	2,999	4,667	5,921
Transport equipment	3,493	7,055	6,221	8,093	6,638	5,122	6,654	9,459	10,012
Electric machinery and appliances	2,191	8,780	10,589	8,564	8,172	6,432	7,035	10,314	13,402
Raw cotton	10,007	4,621	5,647	8,301	9,018	8,278	9,883	11,339	9,088
Wheat, unmilled	9,921	26,473	42,304	37,847	25,949	18,433	17,337	10,260	4,816
Petroleum, crude and partly refined	N.A.	3,487	3,609	5,973	9,560	9,633	10,590	14,747	14,483
Chemical elements and compounds	917	3,586	5,405	7,737	8,287	6,742	6,798	7,184	9,138
Manufactures of metals	1,394	1,817	1,726	1,418	1,353	734	928	1,213	1,879
Textile yarn and thread	1,503	592	704	404	419	243	441	575	330
Copper	849	3,337	3,911	3,554	3,922	4,740	6,020	5,121	5,190
Zinc	656	1,284	1,086	1,430	1,989	825	2,197	1,769	2,286
Rice	5,349	4,190	8,164	5,476	5,747	5,825	2,982	1,807	1,071
Medicinal and pharmaceutical products	997	873	1,741	1,752	1,750	1,830	2,427	2,656	2,322
Fresh fruits and nuts	951	1,886	2,408	3,183	3,760	3,422	3,582	3,162	4,068
Raw wool and hair	562	512	1,178	1,182	1,123	1,724	1,607	1,423	1,188
Paper and paper-board	1,014	1,323	2,123	1,736	1,813	2,358	2,484	3,471	3,104
Oilseeds, nuts and kernels	229	881	472	522	351	344	636	1,053	1,232
Coal-tar, dyestuffs and natural indigo	1,198	375	444	397	439	278	416	370	324
Aluminium	238	629	1,521	1,768	450	151	335	979	287
Milk and cream, dried or condensed	356	664	2,185	1,330	1,371	760	704	1,899	1,794
Raw jute and waste	7	916	2,057	177	931	108	14	negl.	113
Vegetable oils	334	711	1,127	1,655	968	1,723	2,308	2,817	1,550
TOTAL (including other items)	65,021	1,40,853	2,07,836	2,00,761	1,90,863	1,58,210	1,63,420	1,82,454	1,86,744

N.A.-Not available.

IMPORTS

Table 18.5 gives principal imports, with value, for the years 1950-51 and 1965-66 to 1972-73.

The rising trend in imports was reversed in 1967-68 and imports thereafter continued to decline until 1969-70. The decline was mainly in the imports of foodgrains, because of better domestic crops. In some other imports, decline was due to indigenous substitution, shortage of foreign exchange and slackness in home demand. There was, however, an increase in imports during 1970-71, 1971-72 and 1972-73 on account of shortfalls in the domestic production of iron and steel, raw cotton and fertilizers.

Imports in 1973-74

Imports during April-December 1973, increased to Rs 1,785.0 crores from Rs 1,236.7 crores during the preceding corresponding period showing a rise of Rs 548.3 crores or 44.3 per cent. The increase in imports was due mainly to higher imports of cereals and cereal preparations, transport equipment, non-ferrous metals, fertilizers, petroleum crude and petroleum products, machinery and chemical elements and compounds.

DIRECTION OF TRADE

Imports

The principal countries from which India imported and the value of imports from each of these countries for the years 1950-51 and 1964-65 to 1972-73 are shown in Table 18.6.

The Table shows that over the years, the USA has been the largest supplier, mainly because of imports of foodgrains and other items under aid and grants. But owing to a decline in imports of foodgrains by India, the USA was relegated to the second position in 1972-73 and the UK emerged as the best supplier. There was also an appreciable increase in imports from Belgium, Germany (West), Italy, Japan, Sudan and the USSR during 1972-73.

Exports

The UK and the USA continued to be India's principal buyers until 1968-69. Since 1969-70, the USSR and Japan are also among the principal buyers. During 1968-69, the share of UK and the USA in India's exports was 14.8 and 17.2 per cent respectively. But in 1972-73 they accounted for 8.8 and 14.0 per cent of exports respectively. In 1972-73, the USSR emerged as the largest buyer with a share of 15.5 per cent in the total exports followed by USA (14.0 per cent) and Japan (11.0 per cent). Other important buyers were Czechoslovakia, Egypt, France, Germany (West), Italy, Netherlands and UK. Bangladesh also emerged as an important customer in 1972-73.

The principal countries to which India exported and the value of exports to each of these countries for the years 1950-51 and 1964-65 to 1972-73 are given in Table 18.7. A study of these figures reveals an increasing diversification in the direction of export trade. India's exports to the East European countries rose from Rs 63 crores in 1961-62 to Rs 469 crores in 1972-73.

TRADE POLICY

The trade policy is governed by the terms of the Export Policy Resolution presented to Parliament in July 1970. It has laid down guidelines for the realisation of the country's objective for expanding export earnings at a high rate. In keeping with this policy, the Government of India promotes necessary investments to increase production capacity

TABLE 18.6

IMPORTS FROM PRINCIPAL COUNTRIES (BY SEA, AIR AND LAND)

(*Rs lakhs*)

Country	1950-51	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
USA	11,916	51,048	53,483	78,291	77,664	57,239	46,722	45,295	41,869	23,487
UK	13,531	16,365	15,009	16,547	16,265	12,750	10,259	12,676	22,081	23,725
Germany (West)	—	10,934	13,714	6,286	4,393	12,008	8,444	10,747	12,704	17,258
Iran	3,700	2,902	3,408	3,049	3,289	8,637	8,343	9,164	12,636	12,198
Japan	1,011	7,819	7,933	10,740	10,843	11,539	6,741	8,343	16,160	17,853
Italy	1,626	2,262	1,986	4,151	3,427	4,915	3,985	2,886	2,447	3,594
France	1,107	1,786	1,805	3,509	3,442	3,650	2,373	2,134	3,707	3,985
USSR	23	7,878	8,317	11,380	11,122	19,170	17,133	10,613	8,732	11,437
Belgium	922	879	1,151	2,428	1,780	1,135	814	1,151	3,433	5,104
Switzerland	761	1,186	1,451	1,806	1,339	1,512	1,108	1,157	783	1,165
Australia	3,345	2,465	2,418	5,900	6,496	2,573	3,313	3,658	2,940	3,335
Malaysia[1]	81	1,042	1,277	1,240	930	772	827	575	385	842
Saudi Arabia	87	1,346	866	605	2,283	1,276	1,749	2,417	3,834	4,484
Canada	2,190	2,652	3,152	9,219	9,828	9,861	7,487	11,723	11,333	10,761
Czechoslovakia	277	1,983	2,115	3,350	2,734	3,527	2,302	2,020	1,017	1,591
Bangladesh	—	—	—	—	—	—	—	—	negl.	346
Burma	1,880	1,030	972	4,023	924	1,651	2,015	964	587	205
Netherlands	726	1,383	1,977	3,459	2,567	1,768	1,581	1,909	3,035	3,669
Singapore	1,608	384	—	1,503	333	923	154	117	299	283
Sweden	529	1,123	1,063	1,415	1,840	1,677	1,048	980	1,271	1,893
Egypt	3,287	1,735	1,996	2,030	2,690	4,141	2,169	3,984	3,322	2,887
Kenya	1,852	743	456	589	764	671	453	969	1,770	632
Sudan	749	900	574	1,737	1,152	2,150	2,722	2,094	2,532	4,580
TOTAL (including other countries)	65,021	1,34,903	1,40,853	2,07,836	2,00,761	1,90,863	1,58,210	1,63,420	1,82,454	1,86,744

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[1] Figures for 1965-66 relate to Malaysia including Singapore.

TABLE 18.7
EXPORTS TO PRINCIPAL COUNTRIES

(*Rs lakhs*)

Country	1950-51	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
UK	13,982	16,639	14,478	20,239	22,905	20,151	16,507	17,044	16,870	17,253
USA	11,588	14,642	14,698	21,999	20,743	23,436	23,796	20,734	26,308	27,574
USSR	138	7,789	9,289	12,340	12,179	14,831	17,637	20,985	20,870	30,482
Japan	1,027	6,082	5,705	10,744	13,592	15,833	17,936	20,348	18,227	21,716
Australia	2,971	1,994	1,749	2,612	2,798	2,550	2,445	2,446	2,800	2,598
Sri Lanka	1,968	1,438	1,279	1,850	1,493	2,336	2,565	3,182	2,124	801
Germany (West)	—	1,757	1,797	2,603	2,228	2,650	2,989	3,231	3,710	6,228
Canada	1,379	1,744	2,027	3,097	2,977	2,970	2,634	2,796	3,941	2,820
Burma	2,446	629	357	374	384	969	2,085	1,403	1,078	436
Egypt	587	1,424	2,705	2,500	2,150	2,182	3,464	5,637	2,307	3,172
France	910	1,187	1,103	1,836	1,554	2,005	2,172	1,798	2,421	4,590
Argentina	1,065	743	415	202	57	65	70	334	600	77
Sudan	418	634	817	1,457	2,075	1,847	1,985	3,827	5,180	2,071
Malaysia[1]	550	704	1,259	1,048	691	709	826	1,173	1,173	934
Singapore	3,068	787	—	935	878	1,344	1,584	1,763	1,760	1,784
Netherlands	1,016	909	791	1,179	1,298	1,537	1,118	1,398	1,476	3,540
Czechoslovakia	1,008	1,592	1,593	2,857	2,917	3,177	3,009	2,946	3,049	4,610
Kenya	641	529	486	731	604	812	775	787	789	550
Italy	1,500	992	939	1,548	1,782	1,806	1,294	1,401	2,422	4,885
Nigeria	462	512	400	459	375	308	281	862	989	965
Cuba	negl.	167	29	negl.	negl.	—	1	16	negl.	1
New Zealand	367	538	657	859	627	685	584	597	1,029	825
Bangladesh	—	—	—	—	—	—	—	—	4,279	16,824
Indonesia	42	180	82	107	586	555	404	410	321	530
TOTAL (including other countries)	60,064	81,630	80,564	1,15,656	1,19,869	1,35,787	1,41,328	1,53,516	1,60,822	1,97,083

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[1] Figures for 1965-66 relate to Malaysia including Singapore.

Note: The export figures from November 1970 onwards are based on the original copy of the shipping bill after an adjustment made for short and shut out shipment returns received during the period. As such, these are not comparable to the export figures for a period prior to October 1970 which were based on the finally passed shipping bills.

for export so that the surpluses required for the long-term growth of exports are guaranteed in increasing quantities.

Provision has also been made, under the Industrial Licensing Policy, for expansion of industrial output especially for exports. To deal with problems connected with production, generation of surpluses and the development of markets abroad for different manufactures and commodities, a separate Department of Export Production has been created in the Ministry of Commerce. A Secretariat for Industrial Approvals has been set up in the Department of Industrial Development for expeditious disposal of applications for giving preferential allocations of foreign exchange for import of capital goods by export-oriented units as well as for assisting units which put forward attractive phased export programmes.

Public sector trading agencies are being geared up for canalising increasing sectors of import and export trade to take advantage of bulk purchases and to assure industry of the raw materials required for sustaining production, at the same time bringing down the level of inventories required in the country, to push the exports of new and difficult items to new markets and to organise exports on a more rational basis. Sales organisations and techniques are also being re-oriented. In the public sector, the need for growing specialisation has been recognised by setting up special corporations to handle the specialised trade in items, such as, cotton textiles, marine products, tobacco, cashew, complete projects and equipment.

The import policy of the government is so designed as to further develop foreign trade of the country on a rational basis. It is calculated to bring in an increasing amount of the import trade under the ambit of state trading agencies, give further fillip to export production, streamline procedures, encourage the setting up of small-scale industries and assist professional and technical people in their vocations by giving them necessary import facilities for their professional and technical work.

To offset the repercussions on India's balance of payments position arising from the recent oil crisis and the steep escalation of world prices of India's crucial import items, such as, steel, non-ferrous metals, fertilizers and newsprint, efforts to maximise export earnings from all directions have been reinforced with special programmes for promoting exports to the expanding markets of the oil exporting countries.

EXPORT PROMOTION

To impart dynamism to the country's efforts to expand and diversify the exports, a series of measures have been put into operation. These cover finance for export assistance and incentives, transport facilities, training in market research, rationalisation of institutional arrangements and technical services including some with the help of UN agencies and friendly countries. Other facilities provided include release of foreign exchange for specified purposes, import replenishment, priority in allotment of scarce raw materials, in some cases at concessional prices, railway freight concessions, drawback of import and excise duties and other general and specific relief in line with international trading practices.

The export trade has been recognised as a priority sector for providing bank credit and the government and the Reserve Bank have taken measures from time to time to facilitate credit for exporters at reasonable interest. Exporters can obtain both pre-shipment and post-shipment advances from commercial banks at concessional rate of interests. Refinance is also available from the Reserve Bank for such advances. The Industrial Development Bank of India makes advances to exporters of capital goods and machinery in association with commercial banks.

To help exporters meet the competition in foreign markets, develop marketing competence and neutralise the disadvantages inherent in the present stage of the development of the economy, a scheme has been put in force under which cash assistance is offered on the exports of selected non-traditional industrial products. Enhanced compensatory support is available in selected cases with substantial export promise.

Important indigenous raw materials required for export production in the engineering, chemical and other industries are allotted on a priority basis. Prime iron and steel, the main raw material for engineering exports, is made available at international prices under an inter-industry arrangement. Similarly, indigenous plastic raw materials are made available at international prices to exporters of plastic goods.

Organisations

The Government of India recognises and approves several specialised non-commercial organisations for export promotion. The more important of these, which are briefly described below, are the Board of Trade, Trade Development Authority, Federation of Indian Export Organisations, Export Promotion Councils, Commodity Boards, Export Houses, Indian Institute of Packaging, Indian Institute of Foreign Trade, Export Inspection Council and the Indian Council of Arbitration.

The Board of Trade, which was set up in 1962, deals mainly with the problems and policies relating to the development of the country's foreign trade. From time to time it makes recommendations to the central government on such matters as (i) expansion of production; (ii) product development; (iii) improvements in export marketing mechanism and media; and (iv) provision of commercial services to the commercial community with regard to export programmes.

The Trade Development Authority, New Delhi, has been established to induce and organise entrepreneurs, largely in the medium and small scale, to develop their individual export capabilities.

The Federation of Indian Export Organisations, New Delhi, co-ordinates and supplements the export promotion activities of various organisations and institutions, such as, Export Promotion Councils, Commodity Boards, Chamber of Commerce, trade associations and other specialised bodies.

Export Promotion Councils aim at securing the co-operation of consumers, producers and exporters in the country for export promotion. The Councils perform both advisory and executive functions. During 1973-74, 17 such Councils were functioning.

Commodity Boards are statutory bodies and are responsible for production, development and export of certain commodities. At present, six such Boards are in existence dealing with tea, coffee, cardamom, rubber, coir and silk (see also chapter 'Industry').

Besides Export Promotion Councils and Commodity Boards, there are Export Houses which specialise in export trade. A revised scheme for recognition of export houses was put into effect from 1 July 1968. Under the scheme, companies registered under the Indian Companies Act and co-operative societies and federations with a sound financial base and experience in export trade (with a minimum annual export performance of Rs 25 lakhs in the case of non-traditional products and Rs 2 crores in the case of traditional products) are eligible for recognition for three years as export houses. Recognised export houses are entitled for government assistance from the Marketing Development Fund for a wider range of their activities and scales of grants are also higher than before. The number of export houses so far accorded recognition is 224.

The Indian Institute of Packaging, Bombay, which was established in 1966, undertakes research on raw materials for the packaging industry. It organises training programmes on packaging technology and consultancy services for the industry.

The Indian Institute of Foreign Trade, New Delhi, an autonomous organisation under the Societies Registration Act, is primarily concerned with developing training programmes, research and market studies.

The Export Inspection Council, Calcutta, is a statutory body set up under the Export (Quality Control and Inspection) Act, 1963 to adopt measures for the introduction and enforcement of quality control and compulsory pre-shipment inspection of various exportable commodities. Quality control of textile goods and machinery is conducted by the Textiles Committee, set up under the Textiles Committee Act, 1963.

The Indian Council of Arbitration, New Delhi, was set up in 1965 to promote arbitration for settling commercial disputes and to popularise arbitration among traders, particularly those engaged in international trade.

A new statutory board called the Marine Products Export Development Authority was set up in 1972 at Ernakulam for the development of the marine products industry with special reference to exports.

An Export Processing Zone has been set up at Santa Cruz, Bombay, to promote the export of electronic equipments and components. It will be entirely an export-oriented project and the units admitted to it will be obliged to export cent per cent of their production.

The Handicrafts and Handlooms Export Corporation, a subsidiary of the State Trading Corporation, and the Indian Motion Pictures Export Corporation are engaged in promoting exports in their respective fields.

The Directorate of Exhibitions and Commercial Publicity undertakes publicity for Indian goods by organising India's participation in international trade fairs and exclusive India exhibitions abroad. Participation in international trade fairs and exhibitions in overseas countries is arranged by the Ministry of Commerce and the Indian Council of Trade Fairs and Exhibitions, Bombay. Besides, the Export Promotion Councils and Commodity Boards also organise participation in specialised fairs and exhibitions abroad. Trade centres and showrooms have been set up at important foreign commercial centres which conduct visual publicity of exportable goods.

TRADE AGREEMENTS

To forge close commercial relations, India has entered into trade agreements with a number of countries. From time to time, trade and economic delegations are also exchanged with other countries with a view to increasing and diversifying the flow of trade both in pattern and direction.

During 1973-74, the validity of the trade and payments agreements with Poland and Bulgaria, which expired on 31 December 1973 was extended. The trade and payments arrangement with the Democratic

People's Republic of Korea was replaced by a formal agreement following its recognition by India.

During the same period, annual trade protocols were concluded with France, Italy and Belgium; new trade agreements were signed with Bangladesh and Turkey and letters were exchanged at The Hague between the Government of Netherlands and the Government of India establishing a joint committee to identify areas of economic co-operation and devise means to strengthen such co-operation.

A commercial co-operation agreement between India and the European Economic Community (EEC) was concluded on 17 December 1973 to develop commercial exchanges on the basis of comparative advantage and mutual benefit. Agreements on jute and coir were also signed with the EEC providing for substantial reductions in the common customs tariff of the Community. All the three agreements became operative from 1 April 1974.

Annual trade protocols for 1974 were finalised with Bulgaria, Czechoslovakia, Democratic People's Republic of Korea, German Democratic Republic, Hungary, Poland, Rumania and the USSR.

In 1973-74, Indian trade delegations visited Czechoslovakia, Democratic People's Republic of Korea, German Democratic Republic, Mongolia, Rumania and the USSR. An Indian delegation also visited Hungary to attend the meeting of Indian commercial representatives in East European countries to consider expansion of trade relations with these countries. An Indian delegation went to Belgrade to attend the eighth meeting of the Indo-Yugoslav Joint Committee for Economic Co-operation.

Trade delegations from Bulgaria, Democratic People's Republic of Korea, Hungary, Poland and the USSR visited India for annual talks relating to trade protocols for 1974. An Austrian trade-*cum*-industrial co-operation delegation also visited India.

STATE TRADING

For increasing State participation in the country's export and import trade, a number of public sector agencies have been set up. A brief description of some of the important agencies is given below.

State Trading Corporation

The State Trading Corporation of India Ltd. (STC) was registered in 1956 under the Indian Companies Act. The main objective of the Corporation is to enlarge the scope of India's exports and to arrange for essential imports. It also often undertakes price support and buffer stock operations in certain commodities on central government's directions. The Corporation has three subsidiaries. They are (i) Projects and Equipment Corporation of India; (ii) Cashew Corporation of India; and (iii) Handicrafts and Handlooms Export Corporation.

From the inception of the Corporation there has been a rapid growth in its turnover which has increased from Rs 9.2 crores in 1956-57 to Rs 346.53 crores in 1972-73. STC group turnover in 1972-73 was Rs 416.9 crores. The turnover for 1973-74 was provisionally placed at Rs 520.0 crores. Compared to the growth rate in the country's exports which was 4.7 per cent in 1971-72 and 22.1 per cent in 1972-73, STC's export sales were 11.4 and 42.3 per cent (excluding semi-processed leather) respectively.

In order to keep in touch with the changing trends of trade in world markets, the Corporation maintains a network of offices at Beirut, Belgrade, Budapest, Buenos Aires, Colombo, Dacca, East

Berlin, Frankfurt, Hongkong, Lagos, London, Moscow, Nairobi, New York, Paris, Prague, Singapore and Sydney.

Projects and Equipment Corporation

The Projects and Equipment Corporation of India Ltd. was formed in 1971 as a subsidiary of the STC. To start with, the Engineering and Railway Equipment and Engineering Divisions of the STC have been brought under it to form the nucleus of the new organisation.

The main objectives of the Corporation are to boost the export of engineering, industrial and railway equipment, to penetrate new markets and to foster export ventures and turn-key projects in the field of railway system.

During 1972-73, the turnover of the Corporation was Rs 25.5 crores. The turnover for 1973-74 is expected to be Rs 18 crores.

Cashew Corporation of India

Set up as a subsidiary of the STC in 1970, the Corporation ensures steady supplies of imported raw cashewnuts at fair prices to the export-oriented cashew processing industry. The export of cashew kernels during April-December 1973 was Rs 63.07 crores as against Rs 56.52 crores during the same period in 1972. The Corporation has two offices, one in Paris and the other in New York, which carry out export publicity for Indian products.

Handicrafts and Handlooms Export Corporation

This corporation, a subsidiary of the STC, promotes the export of Indian handloom and handicraft products, ready-to-wear garments, besides the canalised export of woollen knit-wear. During 1973-74, its total exports were Rs 20.5 crores, including knit-wear exports totalling Rs 14 crores as against Rs 5.65 crores in 1972-73.

Minerals and Metals Trading Corporation

The Minerals and Metals Trading Corporation is the premier international trading house in the public sector for expanding the exports of mineral ores for the country. The total trade turnover of the Corporation during 1973-74 was estimated to be about Rs 475 crores, an increase of about 38 per cent over the previous year. The exports accounted for over Rs 124 crores and imports for nearly Rs 350 crores. In 1974-75, the turnover is expected to cross Rs 780 crores.

INTERNAL TRADE

The internal trade of India is many times larger than its external trade, owing to the vastness of the country, its varied climate and diverse natural resources.

The internal trade can be classified under five broad heads. These are: (i) rail-borne trade, (ii) river-borne trade, (iii) coasting trade, (iv) trade borne on other craft, and (v) trade by air. Complete and precise data about internal trade are not available because reliable statistics pertaining to items (iv) and (v) are not available.

Rail-and-River-Borne Trade

Statistics of rail-and-river-borne trade are based on the invoices of the railways and steamer companies. Till March 1965, they were recorded on 'import' basis but since then they are being recorded on 'export' basis. For the purpose of these statistics, India is divided into a number of trade blocks, roughly representing the states of the Indian union. The chief port towns of Bombay, Calcutta, Cochin and Madras are constituted as separate trade blocks. Similarly, the less important ports are grouped as 'other ports', each of which is treated as a separate trade block.

Table 18.8 shows the movement of selected articles by rail and river between different trade blocks[1] for selected years between 1960-61 and 1972-73. The internal trade of each block is not included in these figures.

TABLE 18.8
RAIL-AND-RIVER-BORNE TRADE

('000 quintals)

Commodity	1960–61	1965–66	1970–71	1971–72	1972–73
Coal and coke ..	3,14,796	3,31,919	3,25,138	3,34,392	3,34,498
Raw cotton ..	3,719	3,143	2,687	2,572	4,097
Cotton piecegoods ..	2,643	2,563	1,104	1,106	1,110
Rice (not in husk) ..	22,283	16,898	25,156	27,663	23,428
Wheat ..	30,642	45,959	48,773	51,864	61,378
Raw jute ..	4,015	4,615	5,727	6,642	5,249
Iron & steel products ..	37,025	73,432	79,958	80,402	89,391
Oilseeds ..	9,509	7,796	7,657	8,593	9,266
Salt ..	13,539	20,860	22,252	23,487	24,585
Sugar (excluding khandsari sugar) ..	9,106	10,492	10,842	11,383	10,266

Note: The above statistics relate to quantities only as value figures are not recorded in the railway and steamer companies' invoices. Besides, the trade carried by only one steam company between three trade blocks was recorded from April 1960 to August 1965. The company suspended its river service from September 1965. Further, non-trade freight movements are also included because of the difficulty of isolating them.

Coasting Trade

Coasting trade is recorded under two broad heads, (i) internal trade, *i.e.*, trade amongst the ports within the same maritime block, and (ii) external trade, *i.e.*, trade between one maritime block on the one hand and all other maritime blocks on the other. Table 18.9 shows the value of coast-wise trade of India in selected years since 1960-61.

TABLE 18.9
COAST-WISE TRADE

(Rs lakhs)

	1960–61	1967–68	1968–69	1969–70[1]
Imports				
Indian merchandise	17,105	20,415	17,400	18,127
Foreign merchandise[2]	361	—	—	—
Treasure	—	101	98	—
Total Imports	17,466	20,516	17,498	18,127
Exports				
Indian merchandise	17,683	20,415	17,400	18,127
Foreign merchandise	442	—	—	—
Treasure	—	6	—	—
Total Exports	18,125	20,421	17,400	18,127
TOTAL TRADE	35,591	40,937	34,898	36,254

[1] Figures are provisional.

[2] The distinction between Indian and foreign merchandise was abolished from April 1964.

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[1] Up to March 1962, India was divided into 29 trade blocks. The number increased to 31 in April 1962, consequent on the bifurcation of Bombay State and further to 32 in April 1964 after the formation of the State of Nagaland. The number went up to 34 in April 1967 after Haryana was formed and Chandigarh became a centrally-administered territory.

19 TRANSPORT

RAILWAYS

The Indian railway system is the largest in Asia and the fourth largest in the world. It is also the biggest public undertaking in the country. The railways, during 1972-73, had a route length of 60,149 km. They ran daily 10,800 trains, covering a distance of about 12.5 lakh km, operated 7,098 stations, carried over 73 lakh passengers and about 5.5 lakh tonnes of freight. The operational fleet consisted of 11,066 locomotives, 35,840 coaching vehicles and 3,84,283 wagons. They employed 14.1 lakh persons. The total investment was Rs 4,582 crores and the revenue Rs 1,166 crores.

Progress under the Plans

As a result of planned development spread over two decades (1951-1973), the number of passenger and goods traffic has more than doubled. The number of locomotives has increased by 74 per cent, coaching vehicles by more than 95 per cent and wagons by about 87 per cent.

There has also been a progressive increase in expenditure on the development of railways under the five year plans. It was Rs 423.23 crores, Rs 1,043.69 crores, Rs 1,685.8 crores in the First, Second and Third Plans respectively. In the Fourth Plan, the expenditure was Rs 1,104.14 crores till 31 March 1973. The proposed outlay under the Fifth Plan is Rs 2,350 crores, besides Rs 200 crores allocated for transport projects in the metropolitan cities of Bombay, Calcutta, Delhi and Madras.

Tables 19.1 and 19.2 show the progress of the government railways for selected years since 1950-51.

TABLE 19.1
PROGRESS OF GOVERNMENT RAILWAYS

Year	Route length (kilometres)			Running track (km)	Passengers originating (lakhs)	Goods originating (lakh tonnes)
	Electrified	Non-electrified	Total			
1950-51	388	53,208	53,596	59,315	12,840	930
1955-56	388	54,623	55,011	60,845	12,750	1,159
1960-61	748	55,499	56,247	63,602	15,940	1,562
1965-66	2,423	55,976	58,399	68,375	20,820	2,030
1969-70	3,553	56,131	59,684	71,251	23,380	2,079
1970-71	3,706	56,060	59,766	71,669	24,311	1,965
1971-72	3,953	56,115	60,068	73,225	25,358	1,978
1972-73	4,055	56,094	60,149	73,664	26,530	2,013

TABLE 19.2
ROLLING-STOCK

Year	Number of locomotives				Number of coaching vehicles[1]	Number of wagons
	Steam	Diesel	Electric	Total		
1950-51	8,120	17	72	8,209	19,615	2,05,596
1955-56	9,026	67	79	9,172	23,288	2,40,756
1960-61	10,312	181	131	10,624	28,439	3,07,907
1965-66	10,613	727	403	11,743	32,892	3,70,019
1969-70	9,700	1,091	552	11,343	34,811	3,83,891
1970-71	9,387	1,169	602	11,158	35,145	3,83,990
1971-72	9,222	1,288	639	11,149	35,561	3,82,725
1972-73	8,963	1,431	672	11,066	35,840	3,84,283

[1] Includes electric multiple units.

Modernisation of Railways

Tables 19.1 and 19.2 also show the trend towards modernisation of railways. The electrified route length has increased more than 10 times since 1950-51. Steam locomotives, production of which was discontinued from 1972, are being gradually replaced by electric and diesel locomotives. Since the beginning of the five year plans, the number of diesel locomotives has gone up by more than 84 times, *i.e.,* from a mere 17 in 1951 to 1,431 in 1972-73, and electric locomotives by more than nine times, *i.e.,* from 72 to 672. By 31 March 1973, diesel engines were operating over 26,540 route kilometres. Diesel and electric locomotives together carried 75.5 per cent of the total goods traffic in terms of net tonne km in 1972-73 (10 per cent in 1960-61), although in terms of numbers they were only 19 per cent of all locomotives on line. Modernisation and improvement of signalling and telecommunications have also made much headway. In 1972-73, the multi-channel microwave link was in operation on 6,099 km and in progress on 8,423 km.

Improvement in the standards of track for higher speeds on trunk routes and important main lines is being brought about with the help of track recording cars, which are now being produced by the railways themselves. The improvement in the standard of track has enabled Delhi-Howrah and New Delhi-Bombay Rajdhani Express trains to run at speeds of 130 and 120 km per hour respectively. Some other mail and express trains are also running at 100 to 110 km an hour. Trials have also been undertaken to raise the speed of metre gauge trains from the present 75 km to 100 km an hour. So far, about 15,000 km of track on trunk routes and main lines have been brought up to the standards for operation of speeds above 100 km an hour.

Manufacture of Rolling-stock

The Ministry of Railways have set up three units for the production of locomotives and coaches. They are the Locomotive Works at Chittaranjan, the Diesel Locomotive Works at Varanasi and the Integral Coach Factory at Perambur.

The Chittaranjan unit began production in 1950 and had delivered 2,351 steam locomotives up to the end of December 1972 when their production was discontinued. Since 1961, it has also been producing electric locomotives. Up to 31 March 1974, it had produced 391 AC and 58 DC broad gauge electric locos. In addition, it also produced 58 WDS-4 diesel shunting locomotives and 10 ZDM-3 narrow gauge diesel locos. The indigenous content is about 78.6 per cent in the case of electric locomotives and about 66 per cent for diesel shunters.

The Diesel Locomotive Works, Varanasi, set up in 1964, started with assembling diesel locos from imported components. The first loco from this unit was commissioned in the same year. Up to the end of March 1974, it had turned out 549 BG and 148 MG locomotives in addition to five OBO diesel shunters and 21 WDS-5 diesel-electric shunters. The indigenous content of BG locos is 73.8 per cent and that of MG locos 70.3 per cent.

The Integral Coach Factory, Perambur, went into production in 1955. Originally designed to produce broad gauge coach shells, it has diversified its production to turn out furnished coaches, both broad and metre gauge, electric multiple units, diesel rail cars and air-conditioned coaches. Up to 31 March 1974, it had produced 10,124 passenger coaches (unfurnished shells) and the furnishing unit, which was added in 1957-58, had equipped 8,145 coaches. In addition, the Bharat Earth Movers Ltd., Bangalore, a public sector undertaking, produced about 300 broad gauge coaches and Jessop and Co. Ltd., Calcutta, turned out 127 metre gauge coaches and 21 EMU coaches in 1973-74.

Wagon requirements of the railways are largely met by the private sector and to some extent by railway repair workshops. There are 13 units with an annual production capacity of 27,815 wagons (in terms of four wheelers) in the private sector and three railway workshops with a capacity of approximately 4,000 units annually. The production of wagons in 1973-74 was 12,198 units.

To step up wagon production, the central government has taken over a number of sick units in the private sector. A centralised servicing organisation known as Wagons India Ltd. is being formed.

Passenger Traffic and Amenities

The passenger traffic was over 265.3 crores in 1972-73 as against 128.40 crores in 1950-51. Of these, 255.7 crores (124.14 crores in 1950-51) travelled by III class. The earnings from this class of passengers were Rs 302.42 crores in 1972-73 as compared to Rs 84.47 crores in 1950-51.

The average rate charged per passenger for every kilometre was 2.02 paise (ordinary) and 2.96 paise (mail/express) for III class passengers, 4.95 paise (ordinary) and 6.21 paise (mail/express) for II class, 6.97 paise for I class and 20.5 paise for air conditioned class passengers. The rates for III class passengers were among the lowest in Asia.

Since passengers travelling by III class[1] form the bulk of the railway users and are also the main source of income, more and more amenities have been provided for them. Thirty-six Janata trains are run exclusively for them. Two-tier and three-tier sleeper coaches have been introduced for their convenience on all mail and express trains. All-steel and light-weight integral type coaches for safe and relaxed travel have been provided.

The task of providing basic amenities, such as, proper booking arrangements, waiting halls and drinking water supply at all stations was completed in 1970-71. Catering arrangements are available at 2,991 stations and 50 pairs of trains. Ready-to-serve food is supplied on several trains.

Goods Traffic

The railways carried over 20 crore tonnes of goods in 1972-73 as compared to 9.3 crore tonnes in 1950-51. The freight revenue was

TABLE 19.3
PRINCIPAL COMMODITIES CARRIED BY RAILWAYS

('000 tonnes)

Commodity	1950-51	1960-61	1965-66	1971-72	1972-73
Coal	30,911	50,396	65,741	65,070	66,937
Cement	2,471	6,548	8,649	11,227	10,526
Iron and steel	2,750	7,588	10,077	9,235	10,204
Metallic ores (other than manganese ore)	3,055	11,140	18,623	22,467	22,691
Manganese ore	881	1,230	1,497	1,397	1,385
Foodgrains	7,805	12,659	14,514	15,502	15,790
Raw jute	470	644	763	835	616
Tea	265	250	203	280	194
Paper and paper products	193	442	670	931	930
Jute manufactures	271	263	275	428	473
Raw cotton	525	536	485	443	407
Cotton textiles	477	380	308	185	168
Oilseeds	1,595	1,517	1,470	1,116	1,250
Sugarcane	2,819	3,237	2,717	1,909	1,575
Sugar	933	1,488	1,543	1,269	1,187
Salt	1,576	1,981	2,569	2,723	2,700
Chemical manures	589	1,394	2,452	5,237	5,385
Mineral oil	2,692	4,700	7,495	10,063	10,181

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[1] From 1 April 1974, the III class has been redesignated II class.

Rs 720.68 crores in 1972-73. The principal commodities carried by the railways are shown in Table 19.3.

To speed up movement of freight, many fast goods trains have been introduced. The first daily super parcel express between Delhi and Calcutta, covering the distance in 34 hours, was introduced in 1973.

To provide door-to-door service, a container service is being operated. The containers are carried on guaranteed schedules by fast goods trains. The service, at present, covers Bombay-Ahmadabad, Bombay-New Delhi, Madras-Bangalore, Calcutta-New Delhi, Bombay-Madras, Bombay-Secunderabad, Bombay-Bangalore, Calcutta-Bombay, Calcutta-Madras, Bombay-Kota, and New Delhi-Madras-Bangalore routes.

Administration

The responsibility for the administration and management of government railways vests in the Railway Board under the overall supervision of a cabinet minister. The Board consists of a chairman, who is *ex-officio* Principal Secretary to the union Ministry of Railways, a Financial Commissioner and three other members, who are all *ex-officio* Secretaries to Government of India in the Ministry of Railways.

Railway Zones

The railways are divided into nine zones, each headed by a General Manager, who is responsible to the Railway Board for operation, maintenance and financial matters.

The nine zones, with their headquarters and the route kilometres in brackets are: Central (Bombay-VT, 6,013), Eastern (Calcutta, 4,229), Northern (New Delhi, 10,687), North-Eastern (Gorakhpur, 4,977), North-East Frontier (Maligaon-Gauhati, 3,628), Southern (Madras, 7,452), South-Central (Secunderabad, 6,175), South-Eastern (Calcutta, 6,842) and Western (Bombay-Churchgate, 10,147).

Co-operation between the public and the railway administration is secured through various committees including (i) National Railway Users' Consultative Council; (ii) Zonal Railway Users' Consultative Committees; and (iii) Divisional Railway Users' Consultative Committees.

Railway Finances

Since 1924-25, railway finances have been separated from general revenues. They have their own funds and accounts and the railway budget is presented separately to Parliament. However, they have to contribute to the general revenues a fixed rate of dividend on the capital invested. The quantum of contribution, which at present includes the dividend, payment in lieu of the merger of passenger tax with passenger fares and contribution to the Railways Safety Works Fund, is reviewed periodically by a Parliamentary Convention Committee. So far, six such committees have been appointed.

Table 19.4 gives an outline of government railway finances for selected years since 1955-56.

Staff Welfare

Several schemes are in operation for the welfare of the railway employees who numbered 14.1 lakhs in 1972-73 as against 9.1 lakhs in 1950-51. Among the important schemes are the provision of housing and medical facilities, holiday homes at hill stations and schools and hostels. Between 1951 and 1973 (31 March), over two lakh residential units, 98 hospitals and 561 health centres were constructed for the staff. The number of holiday homes at hill stations and other places was 23. The cost of the welfare schemes during 1972-73 was Rs 13.22 crores which was about ten times the amount spent in 1950-51.

TABLE 19.4
GOVERNMENT RAILWAY FINANCES

(*Rs crores*)

Item	1955-56	1960-61	1965-66	1972-73	1973-74 Revised estimates	1974-75 Budget estimates
Passenger earnings						
Upper classes	12.85	15.18	27.64	41.39	41.74	42.25
Third class[1]	94.86	116.41	191.53	302.42	328.86	387.60
Other coaching earnings	20.87	27.21	39.40	65.64	56.94	73.58
Goods earnings	180.28	286.14	465.49	720.68	709.56	899.82
Other sundry earnings	6.81	12.63	22.25	35.60	37.90	38.90
Total earnings	315.67	457.57	746.31	1,165.73	1,175.00	1,433.15
Suspense	+0.62	—0.77	—12.74	—3.31	—5.00	—6.00
Gross traffic receipts	316.29	456.80	733.57	1,162.42	1,170.00	1,427.15
Ordinary working expenses	212.95	313.15	485.85	856.63	953.02	1,148.37
Appropriation to depreciation reserve fund	45.00	45.00	85.00	110.00	115.00	115.00
Appropriation to pension fund	—	—	12.00	15.85	15.85	15.85
Payment to worked lines	0.27	0.09	0.19	0.14	0.15	0.15
Total working expenses	258.22	358.24	583.04	982.62	1,084.02	1,279.37
Net miscellaneous expenditure	7.73	10.69	15.69	15.37	17.13	18.89
Net railway revenues	50.34	87.87	134.84	164.43	68.85	128.88
Payment to General Revenues	36.12[2]	55.86[2]	116.28	161.51	168.60	181.67
Net surplus(+) or deficit(—)	+14.22	+32.01	+18.56	+2.92	—99.75	—52.79
Operating ratio (per cent)	81.6	78.4	79.5	84.50	92.70	89.70
Capital-at-charge	968.98	1,520.87	2,680.32	3,725.81	3,886.41	4,095.41

[1] From 1 April 1974, the III class has been redesignated II class.

[2] Dividend only.

Research and Training

The Research, Designs and Standards Organisation (RDSO) was set up in 1957 for achieving self-sufficiency in the designing and manufacture of railway equipment. The RDSO was formed by the merger of the Central Standards Office and the Railway Testing and Research Centre. It has its headquarters at Lucknow with branches at Lonavla and Chittaranjan.

Over the years, the RDSO has helped the railways in indigenisation in all fields of railway operations and has also made it possible for them to export a number of items of railway equipment. It has recently produced an all-aluminium overhead equipment for railway electrification, which is the first such equipment made entirely from aluminium in the world. In the field of locomotion, RDSO has developed a completely indigenous design for a 3,600 HP electric locomotive which is under production at Chittaranjan.

The railways have four major training institutions. They are

(i) Railway Staff College, Vadodara, (ii) Indian Railways Institute of Advanced Track Technology, Poona, (iii) Indian Railways Institute of Signal Engineering and Telecommunications, Secunderabad, and (iv) Indian Railways Institute of Mechanical and Electrical Engineering, Jamalpur. These institutions also train officials from foreign countries.

Non-Government Railways

Apart from government railways, some private agencies were operating 207 route km of railway lines on three routes (all narrow gauge lines) on 31 March 1973.

ROADS

The Indian road network is one of the largest in the world. In 1971-72, the road length[1] was 11.3 lakh km as against 4 lakh km in 1950-51. The road development programme in the Fifth Plan will lay emphasis on (i) completion of works spilling over from the Fourth Plan; (ii) widening to four-lanes of certain sections of the national highways; (iii) construction of byepasses around congested cities, replacing railway level crossings with over or under bridges, strengthening of pavements and widening to two-lanes of certain remaining single lane sections; (iv) removal of missing links; and (v) development of rural roads under the Minimum Needs Programme.

Plan Expenditure

In the first three Plans and three Annual Plans, a sum of Rs 1,134.86 crores was spent on road development. The Fourth Plan expenditure is estimated at Rs 822.37 crores. The proposed outlay for the Fifth Plan for central and state sectors is Rs 1,774 crores.

Table 19.5 shows the progress of road construction for selected years since 1951.

TABLE 19.5
PROGRESS OF ROAD CONSTRUCTION

('000 kilometres)

Type of Road	1950-51	1960-61	1965-66	1970-71	1971-72
Surfaced	157	263	343	421	472
Unsurfaced	243	261	427	543	658
TOTAL	400	524	770	964	1,130

In terms of area and population, the total road length in the country in 1971-72 worked out to about 34.5 km for every 100 sq. km of area and 201 km for every one lakh of population. The surfaced road length was 14.4 km for every 100 sq. km of area and 84 km for every one lakh of population.

National Highways

The central government is directly responsible for the national highways system. In 1947, approximately 2,575 km of roads called missing road links and thousands of culverts and bridges, which did not exist, were required to be constructed to have an integrated and continuous network. There was an increase in the missing road links owing to the addition of new roads to the national highways system in latter years. Up to 31 March 1973, missing road links constructed totalled 3,491 km and the number of bridges constructed was 195. The present national highways system includes roads of a total length of 28,819 km. An outlay of Rs 501 crores has been set aside in the Fifth Plan for the national highways system.

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[1] Figures of total road length have been revised as a result of removal of duplication in computing the length. This explains variations from those given in the earlier volumes.

State Sector Roads

State highways and district and rural roads are the responsibility of state governments. The length of surfaced roads, excluding national highways, maintained by various agencies in the states and union territories increased by about 81,000 km between 1969 and 1972. A provision of Rs 500 crores has been proposed in the Fifth Plan for developing rural roads under the Minimum Needs Programme, the objective being to link all villages with a population of 1,500 and above with all-weather roads. In coastal, hilly or tribal areas, where the population is sparse, all-weather roads will be provided to clusters of villages with a viable population.

The central government assists in the development of certain arterial roads in the states, such as, the 1,600-km long Bareilly-Amingaon Lateral Road passing through the States of Uttar Pradesh, Bihar, West Bengal and Assam.

The road length in the states and union territories in 1971-72 is given in Table 19.6.

TABLE 19.6
LENGTH OF ROADS IN INDIA (1971-72)

(*kilometres*)

State/Union Territory	Surfaced roads	Unsurfaced roads	Total
Andhra Pradesh	41,820	30,882	72,702
Assam	6,609	23,667	30,276
Bihar	28,535	88,040	1,16,575
Gujarat	22,177	21,218	43,395
Haryana	13,259	262	13,521
Himachal Pradesh	2,850	9,197	12,047
Jammu & Kashmir	5,564	3,262	8,826
Karnataka	54,903	44,155	99,058
Kerala	36,352	47,702	84,054
Madhya Pradesh	43,464	77,660	1,21,124
Maharashtra	46,433	50,795	97,228
Manipur	1,221	7,406	8,627
Meghalaya	857	5,811	6,668
Nagaland	928	3,893	4,821
Orissa	10,827	46,311	57,138
Punjab	14,830	14,891	29,721
Rajasthan	23,558	26,480	50,038
Tamil Nadu	52,643	40,187	92,830
Tripura	1,048	2,814	3,862
Uttar Pradesh	36,438	75,723	1,12,161
West Bengal	20,168	33,106	53,274
Union Territories	7,498	4,471	11,969
TOTAL	4,71,982	6,57,933	11,29,915

Border Roads

The Border Roads Development Board was set up in 1960 to accelerate the economic development of the north and north-eastern border areas by making them accessible through the development of arterial routes. The Board's programme includes the construction of about 7,500 km of new roads, improvement of about 6,000 km of the existing roads and surfacing of about 11,300 km of roads. Of this, 6,754 km of new roads have been constructed, 4,175 km of existing roads improved and 7,591 km of roads surfaced.

The Border Roads Organisation has constructed the world's highest road from Manali in Himachal Pradesh to Leh in Kashmir. The average altitude of the terrain is 4,270 metres and the road negotiates four passes at heights ranging from 4,875 to 5,485 metres.

Road Research

The Central Road Research Institute, New Delhi, was set up in 1952 for research on road engineering. It also advises state governments on problems concerning road works. A Highway Research Station at

Madras carries out research on the design and construction of highways. The Roads Wing of the union Ministry of Shipping and Transport deals with the type designs for route making for the national highways, principles to be followed in the erection of advertisement boards on roadsides, form of recording data on bridges, scrutiny of designs for bridges, assessment of requirements of road-rollers and other road making machinery. The central government gives assistance to the Indian Roads Congress for co-ordinating the activities of various research laboratories.

Road Transport

Motor Vehicles

The total number of motor vehicles on roads on 31 March 1972 was 20.32 lakhs, nearly ten times more than in 1947. These included 6.87 lakh motor cycles and auto-rickshaws, 6.71 lakh private cars and jeeps, 1.67 lakh public service vehicles including taxis, and 3.64 lakh goods vehicles. Maharashtra had the maximum number of vehicles followed by Delhi and West Bengal. The state-wise break-up of motor vehicles is given in Table 19.7.

Nationalisation of Road Transport

Barring Goa, Daman and Diu and Pondicherry, most of the states and union territories have nationalised passenger traffic in varying degrees. In Gujarat, Himachal Pradesh, Maharashtra, Orissa and Delhi, nationalised buses run on most of the routes. In the country as a whole, 40.8 per cent buses were being run by the public sector undertakings on 31 March 1972. Statutory corporations have been set up under the Road Transport Corporations Act, 1950 in several states. In others, the nationalised services are operated by departmental and municipal undertakings or registered companies. In most of the big cities, bus services are state-owned.

Goods transport continues to be almost exclusively in the private sector except in certain areas. In Assam, Bihar, Orissa and West Bengal, the Central Road Transport Corporation, a public sector undertaking, carries out operations.

Transport Bodies

To ensure co-ordination between the central and state policies and operation of the different modes of transport, the Government of India have set up a Transport Development Council. The Inter-State Transport Commission is responsible for the development, co-ordination and regulation of road transport services on inter-state routes. As a result of the efforts made by the Commission, almost all the states and union territories now have reciprocal arrangements for operation of goods and passenger services on inter-state routes. They have introduced zonal permit schemes for the unhindered movement of a limited number of public goods carriers over the national and state highways on payment of tax at a single point. While the southern, western and northern zonal permit schemes are in operation, the eastern and central zonal schemes are being finalised.

An Association of State Road Transport Undertakings, set up in 1963, co-ordinates the activities of the undertakings and secures procedural uniformity, higher standards of service and economic operation.

Revenue

Various road and vehicle taxes brought in a revenue of Rs 803.12 crores in 1971-72. Of this, the centre's share was Rs 544.83 crores and that of states Rs 258.29 crores. Maharashtra got the maximum revenue from road and goods taxes followed by West Bengal and Tamil Nadu. The sources of revenue were: import duty on motor vehicles and accessories (Rs 22.30 crores), excise duty on motor

TABLE 19.7

DIFFERENT TYPES OF MOTOR VEHICLES ON ROAD

(As on 31 March 1972)

State/Union Territory	Motor cycles	Auto-rickshaws	Jeeps	Private motor cars	Taxis	Buses	Goods vehicles	Misc. vehicles	Total
Andhra Pradesh[1] ..	48,672	1,170	8,040	32,700	3,000	7,100	20,700	15,000	1,36,882
Assam[1]	6,027	87	5,148	12,121	908	2,700	16,244	8,235	51,470
Bihar[1]	23,069	164	7,715	19,403	3,417	4,600	17,160	5,016	80,544
Gujarat	61,589	9,601	8,827	30,286	1,864	6,362	35,462	17,092	1,71,083
Haryana[1]	8,000	616	1,300	2,422	131	990	4,980	5,000	23,439
Himachal Pradesh[1] ..	850	2	685	208	105	816	1,798	400	4,864
Jammu & Kashmir[1] ..	2,080	57	735	2,595	395	1,140	5,260	205	12,467
Karnataka	53,296	7,209	5,451	31,740	2,004	7,331	20,246	11,643	1,38,920
Kerala	16,959	1,219	5,133	36,531	9,699	6,840	13,584	3,744	93,709
Madhya Pradesh[1] ..	29,224	1,686	5,650	16,082	828	5,225	18,889	8,832	86,416
Maharashtra[1] ..	88,854	4,734	13,181	1,13,100	17,477	10,800	61,766	19,185	3,29,097
Manipur	397	—	933	237	—	242	807	200	2,816
Nagaland	398	—	933	310	11	140	443	13	2,248
Orissa[2]	11,645	114	4,965	5,677	1,099	2,181	8,727	2,695	37,103
Punjab[1]	16,295	265	1,435	9,050	716	2,780	9,859	3,170	43,570
Rajasthan[1]	16,152	[3]	2,250	30,299	1,632	7,900	21,261	14,723	94,217
Tamil Nadu ..	41,737	2,157	4,891	48,748	9,434	10,802	20,489	4,154	1,42,412
Tripura	452	4	1,248	324	298	269	1,790	463	4,141
Uttar Pradesh[1] ..	55,590	110	5,732	37,176	1,800	8,150	26,622	6,084	1,41,364
West Bengal ..	36,398	350	1,900	83,388	6,580	9,060	36,453	16,160	1,90,279
A & N Islands ..	403	—	112	75	32	31	302	129	1,084
Chandigarh[1] ..	5,400	600	170	1,600	56	200	51	216	8,293
Delhi	1,14,365	11,323	[4]	63,158	4,272	3,326	15,743	—	2,12,187
Dadra & Nagar Haveli[1]	220	—	23	115	3	—	32	25	418
Goa, Daman & Diu[1] ..	5,756	38	[4]	5,654	800	872	5,014	15	18,149
Pondicherry[1] ..	1,780	18	115	1,622	48	103	234	570	4,490
TOTAL ..	6,45,608	41,524	86,572	5,84,711	66,609	99,960	3,63,916	1,43,469	20,32,369

[1] Estimated. [2] As on 31 December 1971. [3] Included under motor cycles. [4] Included under motor cars.

vehicles (Rs 34.82 crores), excise duty on tyres and tubes (Rs 62.40 crores), import duty on tyres and tubes (Rs 1.80 crores), import duty on motor fuel (Rs 9.60 crores), excise duty on motor fuel (Rs 413.91 crores), motor vehicle taxes and fees (Rs 113.57 crores), sales tax on motor fuel (Rs 72.03 crores) and passenger and goods taxes (Rs 72.69 crores).

INLAND WATERWAYS

The length of navigable waterways in India is about 14,150 km, of which about one-fifth is navigable by steamers. Important among the navigable rivers are the Ganga and Brahmaputra and their tributaries; the Godavari and Krishna and their canals; the backwaters and the canals of Kerala; the Buckingham Canal in Andhra Pradesh and Tamil Nadu and the Mandovi and Zuari rivers in Goa.

The Fourth Plan expenditure on inland waterways was about Rs 11 crores as against the outlay of Rs 12 crores. An outlay of Rs 40 crores for central and state sectors has been proposed in the Fifth Plan for the development of inland waterways.

Inland Water Transport Bodies

The Central Inland Water Transport Board, New Delhi, formulates policy for the development of inland water transport in the country. The Inland Water Transport Directorate of the union Ministry of Shipping and Transport gives technical advice to the states, which are responsible for the development of inland waterways.

The States of Andhra Pradesh, Assam, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Uttar Pradesh and West Bengal and the Union Territory of Goa, Daman and Diu have set up inland water transport organisations to formulate and implement schemes.

CIWTC

The Central Inland Water Transport Corporation, which was set up in 1967 at Calcutta, operates the river services between Calcutta and Assam *via* Bangladesh and between India and Bangladesh. Its other activities include ship-building and ship-repairing; stevedoring and clearing agency at Calcutta; dredging on the Bhagirathi river and maintenance of dredgers of the Coal Board on the Ajoy and Damodar rivers.

SHIPPING

India is the second largest ship-owning country in Asia and though it ranks seventeenth in the world, Indian ships operate on most of the sea routes of the world.

The shipping tonnage on 1 April 1974 was 30.90 lakh GRT (with another 21.14 lakh GRT on order) as against 3.72 lakh GRT on 1 April 1951. Of this, the central government undertakings owned 15.02 lakh GRT, *i.e.*, 48.8 per cent. The number of ships was 274 as against 94 on 1 April 1951. The Fifth Plan envisages a target of 96 lakh GRT including 10 lakh GRT on order.

Shipping Bodies

A National Shipping Board advises the government on shipping. The Shipping Co-ordination Committee in the union Ministry of Shipping and Transport seeks to bring about better liaison between the government and the shipping companies to ensure maximum utilisation of the available capacity. The All India Shipping Council is concerned with negotiations on freight and shipping problems at shipping conferences and with shipping companies.

The Indian National Shipowners' Association, which is also represented on most of the government bodies on shipping, promotes the interests of national shipping, ship-building and allied industries.

Shipping Companies

There are at present 34 shipping companies in the country. Of these, two companies, namely, the Shipping Corporation of India Ltd. (SCI) and the Mogul Line Ltd. are in the public sector and the rest in the private sector.

The SCI, which is one of the biggest shipping lines in the world, has a fleet of 105 vessels with 14.35 lakh GRT. It operates on all the important maritime routes. It also operates overseas tanker services under charter, besides coastal services. The total income of SCI during 1972-73 was Rs 82.42 crores.

The Mogul Line Ltd. mainly carries Haj pilgrims from Bombay to Jeddah (Saudi Arabia) and back. It also operates two passenger vessels on the Konkan coast. Its fleet is made up of five passenger-*cum*-cargo steamers and two colliers with a total GRT of 55,787 tonnes.

Among the major private sector shipping companies which own one lakh or more GRT are the Scindia Steam Navigation Company Ltd. (5 lakh GRT), Great Eastern Shipping Company Ltd. (2.74 lakh GRT), Indian Steamship Company Ltd. (1.54 lakh GRT) and South India Shipping Corporation Ltd. (1.22 lakh GRT).

The cargo carried by Indian ships in the country's overseas trade was 1.06 crore tonnes in 1972-73.

Training Institutions

There are six training establishments for merchant navy officers and ratings. T.S. 'Rajendra' at Bombay imparts pre-sea training to navigation cadets. The Directorate of Marine Engineering Training, Calcutta, trains engineering cadets. The Lal Bahadur Shastri Nautical and Engineering College, Bombay, conducts post-sea instructional courses for navigation and engineering cadets. T.S. 'Bhadra', T.S. 'Mekhala' and T.S. 'Naulakshi' provide pre-sea training courses for deck and engine room ratings and bhandari cooks.

Ship-Building

India has three ship-building yards, the Hindustan Shipyard at Visakhapatnam, Garden Reach Workshops at Calcutta and Mazagon Dock at Bombay. A fourth shipyard at Cochin is under construction. All the shipyards are in the public sector.

Hindustan Shipyard

The Hindustan Shipyard has built 63 ships since 1947. Its present production capacity is 2-3 ships of 12,500 DWT each per year. Under an integrated development programme, the production capacity of the yard is being raised to 6 ships aggregating 80,000 DWT annually. Apart from a dry dock, which is in operation since 1971, the construction of a wet dock was started in 1972. On completion, it will enable the shipyard to undertake above-water repairs of ships and provide increased fitting-out facility.

Garden Reach Workshops

The Garden Reach Workshops builds tugs, barges, dredgers and coasters. A modernisation programme is under way. On its completion, the workshops will be able to construct ocean-going merchant ships of 15,000-25,000 DWT every year.

Mazagon Dock

The Mazagon Dock, which primarily constructs ships for the Navy, is also building two replacement passenger-*cum*-cargo vessels for the Shipping Corporation of India. Its subsidiary, the Goa Shipyard Ltd., builds launches and tugs and also undertakes ship-repairing.

Cochin Shipyard

The shipyard at Cochin, which is being constructed at an estimated cost of about Rs 74 crores, provides for a dock for building ships of 85,000 DWT and another dock for repair of ships up to 1,00,000 DWT. Work on the project is scheduled to be completed by 1975. Under an agreement, a Scottish firm will collaborate in building five ships of 75,000 DWT each.

Marine Design Organisation

To encourage marine design, which at present is purchased from abroad, a central marine design and research organisation is to be set up during the Fifth Plan at a cost of Rs 20 crores.

PORTS

India has ten major and more than 160 intermediate and minor ports scattered along her 6,083-km long coastline.

Major Ports

The major ports are at Bombay, Calcutta, Cochin, Kandla, Madras, Mangalore, Marmagao, Paradip, Tuticorin and Visakhapatnam.

Bombay is the biggest port of the country. About a quarter of the foreign trade of India passes through it. Calcutta is the largest terminal port in South Asia. It commands the largest and the richest hinterland. Cochin is one of the finest natural harbours in the East. Kandla has been developed as a major port to relieve the pressure on Bombay. A free trade zone was created at Kandla in 1965. Madras is a man-made port. Marmagao (Goa) enjoys the second position in total traffic tonnage. Paradip (Orissa) is primarily for the export of minerals, specially iron ore. Visakhapatnam is the only land-locked and protected port. Mangalore on the west coast and Tuticorin on the east coast were declared major ports in 1974. All the major ports, except Mangalore and Tuticorin, are administered by statutory port trust boards.

The traffic handled by the major ports, excluding Mangalore and Tuticorin, during 1973-74 was 6.43 crore tonnes as compared to 5.8 crore tonnes during 1972-73.

Intermediate and Minor Ports

The Indian coastline is served, apart from major ports, by more than 160 intermediate and minor ports which handle coastal and overseas traffic. The responsibility for the development of such ports vests in the state governments concerned. The central government gives loans and provides technical advice to state governments.

The Fifth Plan provides Rs 10 crores for the development of intermediate and minor ports. In addition, Rs 12 crores have been set aside for the development of ports in Andaman and Nicobar Islands and Lakshadweep.

National Harbour Board

The National Harbour Board was set up in 1950 to advise the central and state governments on the management and development of ports, particularly minor ports. It consists of representatives of the maritime states, the central ministries concerned, port authorities and non-official members representing Parliament, shipping, trade, industry and labour.

Navigational Aids

The navigational aids have been categorised into general and local. While the central government looks after the general navigational aids, the states, port trusts and other agencies are responsible for the local aids. However, the central government exercises control over all aids through the Department of Lighthouses and Lightships.

The Department maintains various navigational aids along the coast of India, besides launches and VHF wireless sets. In 1972-73, there were, among others, 140 lighthouses, 27 lightbuoys, 12 fog signals, seven radio beacons, eight Decca navigation chain stations and two light vessels.

A Central Advisory Committee for Lighthouses, constituted under the Indian Lighthouses Act, 1927 advises the central government on lighthouses.

CIVIL AVIATION

On 31 December 1973, there were 648 aircraft with current certificates of registration and 282 with current certificates of air-worthiness. During 1973, Indian aircraft flew, both on scheduled and non-scheduled services, about 6.6 crore km, carried about 34.4 lakh passengers and 6.3 crore kg of cargo and mail as against 7 crore km, 33.6 lakh passengers and 6.6 crore kg of cargo and mail respectively in 1972.

Directorate of Civil Aviation

The Civil Aviation Directorate operates the civil airports in India except the international airports. It is also responsible for the air navigation services which include air traffic control and services for safety and regularity of aircraft operations.

IAAI

The International Airports Authority of India (IAAI) was set up in 1972 for the operation, management, planning and development of the four international airports. The Authority took over the international airports on 1 April 1972.

Airports

There are four international airports and 84 other aerodromes in the country. The international airports are : Bombay (Santa Cruz), Calcutta (Dum Dum), Delhi (Palam) and Madras (Meenambakkam).

Other aerodromes are: Agartala, Ahmadabad, Amritsar, Hyderabad (Begumpet), Delhi (Safdarjung), Gauhati, Jaipur, Lucknow, Nagpur, Patna, Tiruchirappalli, Varanasi, Aurangabad, Baroda, Behala, Belgaum, Bhavnagar, Kulu (Bhuntar), Bhopal, Bhubaneswar, Bhuj, Bombay (Juhu), Coimbatore, Gaya, Indore, Junagadh (Keshod), Kailashahar, Kamalpur, Kandla, Khajuraho, Khowai, Kota, Silchar (Kumbhirgram), Madurai, Mangalore (Bajpe), Mohanbari, Muzaffarpur (Rewaghat), Hyderabad (Nadirgul-Gliderdrome), North Lakhimpur (Lilabari), Panagarh, Pantnagar (Phoolbagh), Porbandar, Port Blair, Raipur, Rajkot, Ranchi, Tirupati, Trivandrum, Imphal (Tulihal), Udaipur, Vijayawada, Visakhapatnam, Akola, Balurghat, Bilaspur, Chakulia, Cooch-Behar, Cuddappah, Donakonda, Poona (Hadapsar-Gliderdrome), Hassan, Jabalpur, Jhansi, Jharsuguda, Jogbani, Kanpur (Chakeri), Khandwa, Kolhapur, Lalitpur, Malda, Mysore, Palampur (Deesa), Panna, Pasighat, Rajahmundry, Ramnad, Raxaul, Rupsi, Satna, Shella, Sholapur, Thanjavur, Vellore and Warangal.

The airports at Ahmadabad, Amritsar, Bombay (Santa Cruz), Calcutta (Dum Dum), Delhi (Palam), Madras (Meenambakkam), Patna, Port Blair, Tiruchirappalli, Trivandrum and Varanasi are customs aerodromes.

Air Services

The scheduled air services are run by two public sector corporations, Indian Airlines and Air-India, both of which were formed in 1953. The Indian Airlines provides air services within the country, linking up most of the principal industrial and tourist centres, and also to neighbouring countries, such as, Bangladesh, Burma, Nepal and Sri Lanka. During 1973, it flew 27,90,973 passengers and covered over 20.2 crore tonne kilometres. On 31 March 1974, its operational fleet consisted of 6 Boeing-737s, 9 Caravelles (including three on lease), 5 Viscounts, 9 Fokkers, 15 HS-748s and 6 Dakotas.

Air-India provides an all-jet service reaching out to 29 countries. During 1972-73, it carried 5,45,820 passengers and flew about 42 crore tonne kilometres. Its fleet consisted of 9 Boeing-707s and 4 Boeing-747s (Jumbo Jets).

Air Transport Agreements

India has air transport agreements with Afghanistan, Australia, Belgium, Burma, Czechoslovakia, Egypt, Ethiopia, Federal Republic of Germany, Fiji, France, Hungary, Indonesia, Iran, Iraq, Italy, Japan, Kenya, Kuwait, Lebanon, Malaysia, Mauritius, Nepal, Netherlands, Pakistan, Philippines, Saudi Arabia, Singapore, Sri Lanka, Sweden, Switzerland, Tanzania, Thailand, Uganda, UK, USA and USSR.

Flying Clubs and Gliding Centres

There are 25 subsidised flying clubs with headquarters at Amritsar, Banasthali, Bangalore, Baroda, Bhubaneswar, Bombay, Calcutta, Coimbatore, Gauhati, Hissar, Hyderabad, Indore (with a branch at Bhopal), Jaipur, Jamshedpur, Jullundur Cantt., Karnal, Lucknow (with branches at Kanpur and Varanasi), Ludhiana, Madras, Nagpur, New Delhi, Patiala, Patna, Raipur and Trivandrum.

There is one Departmental gliding centre at Poona and 13 subsidised gliding clubs at Agra, Ahmadabad, Amritsar, Hissar, Jaipur, Jullundur, Kanpur, Nasik, New Delhi, Patiala, Patna, Pilani and Raipur.

Training Centres

The Civil Aviation Training Centre at Allahabad trains pilots, aerodrome officers, air traffic controllers, radio operators and technicians. The Central Flying Training School at Nadirgul, Hyderabad, imparts advanced training to candidates from the flying clubs for the grant of commercial pilot licences.

TOURISM

In 1973, 4,09,895 tourists visited India as compared to 3,42,950 in 1972, an increase of 19.5 per cent. The foreign exchange earnings from tourism amounted to Rs 67.5 crores in 1973, an increase of 38.9 per cent over the preceding year.

India's potential for tourism is as vast as it is varied. While the infra-structure at home is being strengthened, promotional activities are undertaken abroad to attract more tourists. A sum of Rs 78 crores has been proposed for developing tourism in the Fifth Plan as against Rs 25 crores in the Fourth Plan.

Tourism Bodies

The National Tourism Board, set up in 1972, advises on tourism policy and directions in which tourism should be developed. The Tourist Development Council co-ordinates the tourism plans of the central and state governments. The Department of Tourism of the union Ministry of Tourism and Civil Aviation has both promotional and organisational functions and works in close co-operation with the India Tourism Development Corporation. Several states and union territories have also set up tourism departments and offices.

The Department of Tourism has a chain of regional offices at home and abroad. Regional offices are functioning in Bombay, Calcutta, Delhi and Madras with sub-offices at Agra, Aurangabad, Cochin, Jaipur, Jammu, Khajuraho and Varanasi. These offices work in close collaboration with state governments, travel agents, hoteliers and carriers. Abroad, India has tourist offices in New York, San Francisco, Chicago, Rio de Janeiro, Toronto, London, Sydney, Paris, Tokyo, Frankfurt, Geneva, Brussels, Stockholm, Milan, Singapore and Vienna. In addition, tourist promotion is organised at Washington, Miami, Boston, Ann Arbor, Seattle and Dallas.

The tourist offices at Brussels, Frankfurt, Geneva, London, Milan, Paris and Stockholm in Europe, Chicago, New York and San Francisco in USA and Toronto in Canada are functioning under a scheme of close co-ordination between the Department of Tourism and Air-India for promotion of tourist traffic from these regions. The scheme is to be extended to East Asia and Australasia also.

Accommodation and Other Facilities

There are at present 195 hotels, with 12,190 rooms, on the approved list of the Department of Tourism. Supplementary accommodation is being put up by the Department of Tourism in the form of youth hostels, forest lodges, reception centres, tourist bungalows and camping sites. Rest houses are also being constructed at ten wild life sanctuaries and national parks.

At present, there are 136 approved tourist car operators spread over 28 tourist centres and a number of approved shops at important tourist centres to serve the tourists. Apart from this, there are 112 officially registered travel agencies in the country and the services of an increasing number of trained and approved travel guides are also available.

Incentives for Tourists

To promote tourist traffic, regulations relating to police registration, currency, exchange control, customs and liquor and temporary landing permits have been relaxed. Certain other simplification of formalities is under way. The validity of landing permits has been increased from 21 to 28 days. Tourists from many countries can now come to India without a visa. Concessional tickets are issued by the railways for round-trip journeys and circular tours. Special concessions are given to students and pilgrims and travel to hill stations during summer months.

India Tourism Development Corporation

The India Tourism Development Corporation, set up in 1966, is the only multi-unit undertaking for the development of tourism in the country. It looks after the construction and management of hotels, motels and travellers' lodges, provision of transport facilities for tourists, production of tourist publicity and promotional material, provision of entertainment and management of 'duty free' shops at international airports.

Presently, the Corporation has under its management 12 hotels—six in Delhi, and one each at Aurangabad, Bangalore, Kovalam, Khajuraho, Mahabalipuram and Varanasi. It also arranges sound and light shows at Red Fort, Delhi, Sabarmati Ashram, Ahmadabad, and Shalimar Gardens, Srinagar.

METEOROLOGY

Meteorological and weather services are provided by the India Meteorological Department which is one of the oldest scientific institutions in the country. It has its headquarters as well as a regional office at New Delhi. The other regional offices are at Bombay, Calcutta, Madras and Nagpur. The Calcutta unit compiles and publishes the 'Indian Nautical Almanac' and the 'Rashtriya Panchang' in various Indian languages. Meteorological centres have been set up at Bangalore, Bhubaneswar, Gauhati, Hyderabad, Jaipur, Lucknow, Srinagar and Trivandrum. The Trivandrum centre maintains liaison with the Thumba Equatorial Rocket Launching Station regarding the meteorological sounding of the upper atmosphere with rockets.

The Department issues 'warnings' against heavy rainfall, strong winds and cyclonic weather for the general public and a number of private and public organisations including aviation, defence services, shipping, ports and fishing craft, mountaineering expeditions and agriculturists. Flood meteorological offices have been opened at Bhubaneswar, Delhi, Gauhati, Lucknow and Patna to give meteorological support to the Flood Forecasting Organisation set up by the Central Water and Power Commission.

There are separate directorates of the Department to deal with agricultural meteorology, meteorological training, Indian Ocean and Southern Hemisphere Analysis Centre, instruments, hydrometeorology, aviation services, the Northern Hemisphere Analysis Centre, radio-meteorology, satellite meteorology and meteorological telecommunications.

Cyclone Forecasts

Cyclone 'warnings' to ports and shipping are issued on the basis of data by weather satellites through automatic picture taking stations at Bombay, Calcutta, Madras, New Delhi and Poona. For improving the cyclone 'warnings', the Meteorological Department has established cyclone warning radar stations at Calcutta, Paradip and Visakhapatnam and a cyclone warning and research centre at Madras. Four more stations at Masulipatnam, Karaikal, Bombay and Goa have been planned for vulnerable areas of the Indian coastline.

Tourists' Meteorological Services

Tourism departments at the centre and the states have access to the records of the Meteorological Department for providing information to tourists regarding the best period to visit India in their respective fields of interest.

Tourists' meteorological offices are being set up in various parts of the country to issue weather forecasts to the tourists of each resort. One such centre has been set up at Kovalam and two more are coming up at Mahabalipuram and Gulmarg. Some more will be established during the Fifth Plan period.

Exchange of Data

Meteorological data are exchanged with many countries through high speed telecommunication facilities. As part of India's co-operation in the World Weather Watch, the Regional Meteorological Centre and the Regional Telecommunication Hub have been established at New Delhi. An area forecast centre has also been set up in New Delhi to exchange data with ICAO.

20 COMMUNICATIONS

India has made remarkable progress in communication services between 1951 and 1974 (31 March). During this period the number of post offices increased by more than three times, telegraph offices nearly doubled and telephones multiplied more than nine times. The subscriber trunk dialling service, which was introduced in 1960, is now in operation between 68 pairs of cities. The overseas communication system connects India with almost all countries of the world.

The Posts and Telegraphs Board of the Ministry of Communications provides the postal and telecommunication services of the country. It is, next to the railways, the largest employer in the country. The number of persons (including extra-departmental and industrial workers) employed by the Board on 31 March 1973 was 6.08 lakhs and the capital outlay of the Board (outside the revenue account) was Rs 648.6 crores.

For operational purposes, the country is divided into 16 territorial units called P and T Circles, seven functional units and 14 telephone districts at Ahmadabad, Bangalore, Bombay, Calcutta, Coimbatore, Delhi, Hyderabad, Jaipur, Kanpur, Lucknow, Madras, Nagpur, Patna and Poona. Apart from these, there are units for specific purposes such as telecommunications projects, factories, stores and training. The Ministry of Communications, through the Department of Posts and Telegraphs, also discharges certain agency functions like collecting wireless and television licence fee, running post office savings banks, issuing national savings certificates and postal life insurance policies and selling units of the Unit Trust of India.

POSTAL SERVICES

The history of modern postal system in the country may be traced back to 1837 when postal services were thrown open to the public. The first postage stamp was issued in Karachi in 1852 which was valid only in Sind. The Postal Department was set up in 1854 when about 700 post offices were already functioning in the country. The money order system was introduced in 1880. Five years later, postal savings bank scheme was put in operation. The railway mail service was started in 1907 and the air mail service in 1911.

The number of post offices on 31 March 1974 was 1,16,804 including 1,05,491 in rural areas. On an average, each post office served 4,684 persons and covered an area of 27.36 sq. km as against 10,026 persons and 91.12 sq. km in 1951. During the Fifth Plan, 31,000 new post offices are to be opened. The number of letter boxes was 2,41,000 including those at places other than post office premises. Delivery of mail was being made daily to 3,88,530 villages in 1973 as compared to 3,52,997 villages in 1972. The number of postal articles handled during 1972-73 was 678.08 crores including 9.98 crore inland money orders of the value of Rs 697.6 crores. The postal revenue was Rs 118.25 crores. Statistically, this worked out to an average of 12.3 articles and a revenue of Rs 2.16 per head of the population per annum.

Conveyance of Mail

Mail is carried both by surface and air. For surface mail, various modes of conveyance are used. The total surface route length covered in 1972-73 was 7.9 lakh km, of which 12 per cent was by rail, 33 per cent by motor service, 47 per cent by runners and carriers and 8 per cent by various other means such as steamers, mail carts, camels, horses and cycles.

An inland night air mail service links up the principal cities of India. Under the 'All-up Scheme', all inland letters, letter-cards, post cards and money orders are normally carried by air without surcharge. The total weight of air mail carried in 1972-73 was 1.03 crore kg.

India has also air mail and air parcel services with over a hundred countries of the world.

PIN Code

To modernise the handling of the growing volume of mail, the Postal Index Number (PIN) code was introduced in 1972. The code has six digits which help to identify and locate every departmental delivery office. It provides a built-in routing information for postal sorting. The first digit indicates the region, the second digit the sub-region and the first three digits, taken together, the central sorting district. The last three digits indicate a particular delivery post office in the area served by the sorting district.

Table 20.1 gives important data relating to post offices.

TABLE 20.1
POSTAL STATISTICS

	1950-51	1960-61	1965-66	1971-72	1972-73
Number of post offices					
Urban	5,284	7,326	8,913	10,520	11,008
Rural	30,810	69,513	88,023	1,01,162	1,04,643
Total	36,094	76,839	96,936	1,11,682	1,15,651
Postal articles (crores)	232.10	410.55	655.55	667.55	678.08
Regd. articles (crores)	7.65	11.60	16.28	18.77	19.00
Insured articles (lakhs)	37.23	41.00	55.00	65.00	69.00
Money orders (crores)	5.10	7.65	9.15	10.24	9.98
Value of money orders (Rs crores)	195.00	334.25	477.43	651.70	697.60
Postal revenue (Rs crores)	21.03	40.78	66.00	110.64	118.25

Post Offices in Backward Areas

Extension of postal facilities to backward and hilly areas has been further liberalised since 1971. New post offices are opened in 'very backward areas' on the criterion that these post offices earn an estimated revenue of 15 per cent of their cost. In hilly areas, it is put at 10 per cent of the cost. On 1 April 1974, the number of such post offices was 12,910. It is proposed to open 2,000 new post offices in the backward areas during the Fifth Plan.

Post Office Savings Bank

The number of depositors of the post office savings bank was 2.31 crores on 31 March 1973. Savings bank facilities on that date were available at 496 head post offices, 19,607 sub post offices and 95,061 branch post offices. The expansion of post office savings bank business since 1961 is shown in Table 20.2.

TABLE 20.2
EXPANSION OF POST OFFICE SAVINGS BANK

(As on 31 March)

Year	Savings bank		Cumulative time deposits		Savings certificates
	No. of depositors (lakhs)	Balance (Rs crores)	No. of depositors (lakhs)	Balance (Rs crores)	Balance (Rs crores)
1961	92	431.40	3.98	2.64	377.20
1970	197	890.00	51.18	98.31	921.89
1971	206	974.00	51.30	116.54	888.49
1972	218	1,025.00	51.65	133.73	883.50
1973	231	1,119.00	49.99	144.19	949.97

Postal Life Insurance

The number of postal life insurance policies in force on 31 March 1973 was 2,87,766 and the sum assured was over Rs 91 crores.

Commemorative Stamps

The first set of commemorative stamps was released in 1931 on the inauguration of New Delhi as the new capital of India. Since then a number of commemorative stamps have been issued to honour illustrious persons and to mark important events.

The National Philatelic Museum started functioning in New Delhi in 1968. It has over a lakh of Indian and foreign stamps on display.

To publicise the philatelic potential in India and boost the sale of Indian stamps abroad, agents have been appointed in Australia, Japan and USA.

TELEGRAPH SERVICES

Indian telegraphs is one of the oldest government-owned public utilities in the world. The first government telegraph line was opened in 1851 between Calcutta and Diamond Harbour.

There were 16,710 telegraph offices (excluding postal receiving offices and licensed telegraph offices) on 31 March 1973. Over 6.12 crore telegrams were booked during 1972-73, earning a revenue of Rs 40.98 crores. The corresponding figures for 1950-51 were: telegraph offices—8,205, telegrams—2.79 crores and revenue—Rs 5.9 crores. About 7,000 new telegraph offices are proposed to be opened in the Fifth Plan.

Since 1949, a number of telegraph offices are accepting telegrams in Hindi and other principal Indian languages provided they are written in Devanagari script. On 31 December 1973, this facility was available at 6,525 telegraph offices. Over 12,73,200 telegrams were sent in Devanagari script in 1972-73 as against 2,570 in 1949-50.

The phonogram service for sending and receiving telegrams by telephone was available at 2,463 stations up to 31 March 1973. Over 94 lakh messages were booked and over 21 lakh messages delivered on telephone during 1972-73.

Teleprinters

The number of teleprinters in use on 31 December 1973 was 21,033, including 876 teleprinters with Devanagari key-board, as against 20,358 and 800 respectively at the end of 1972.

The Hindustan Teleprinters Ltd., a public sector undertaking, was established at Madras in 1960 to manufacture teleprinters. Over 6,000 units of teleprinters and spares were produced in 1973-74. It has also taken up production of electrical typewriters.

Telex Service

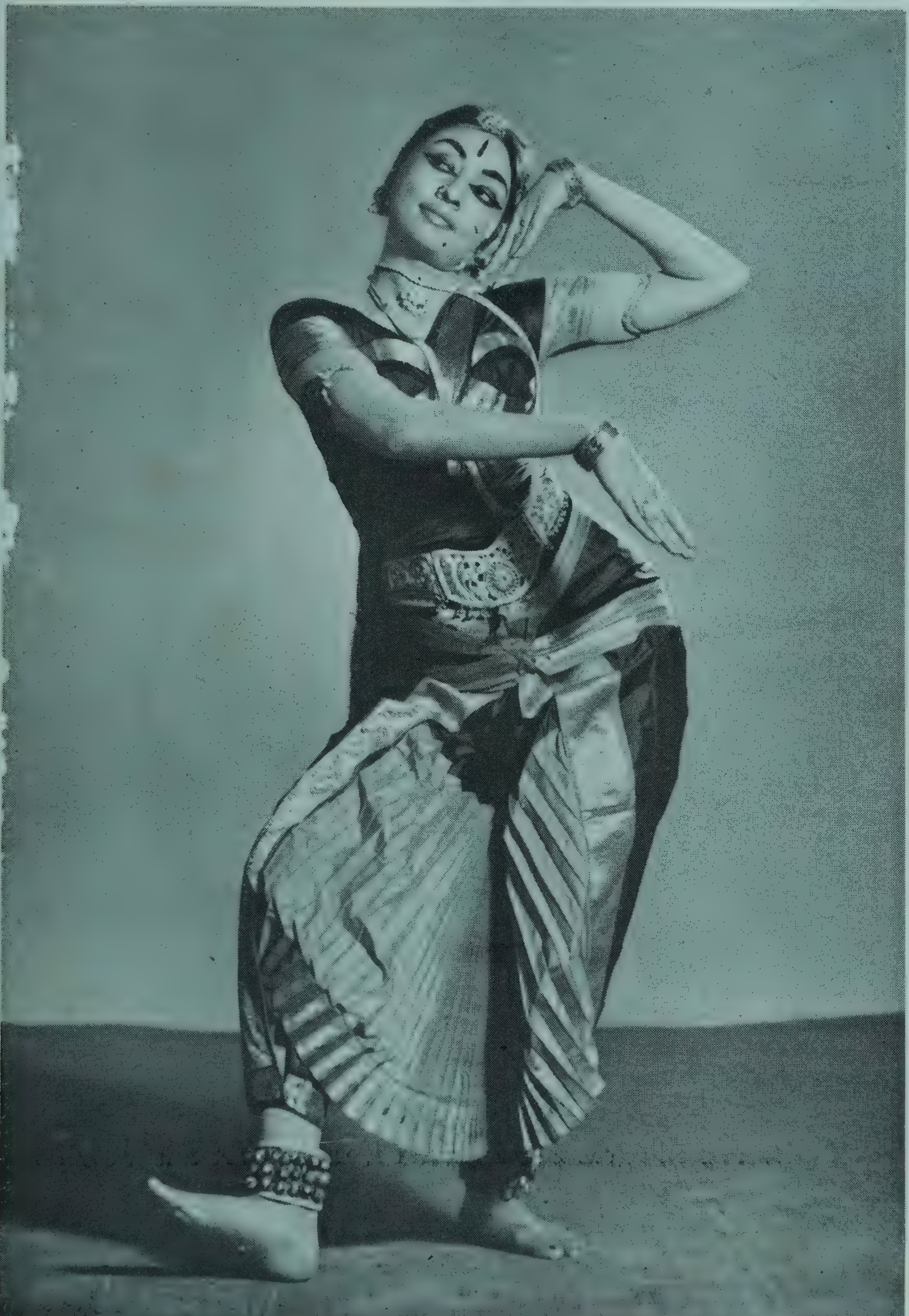
The national telex service was opened in 1963. The first Devanagari telex was inaugurated in New Delhi in 1969. With the commissioning of teleprinter exchanges at important cities, printed messages can be sent and received directly from one subscriber to another in any part of the country. Telex service was available between 49 cities having an installed capacity for 12,440 telex connections on 31 March 1974.

Facsimile Service

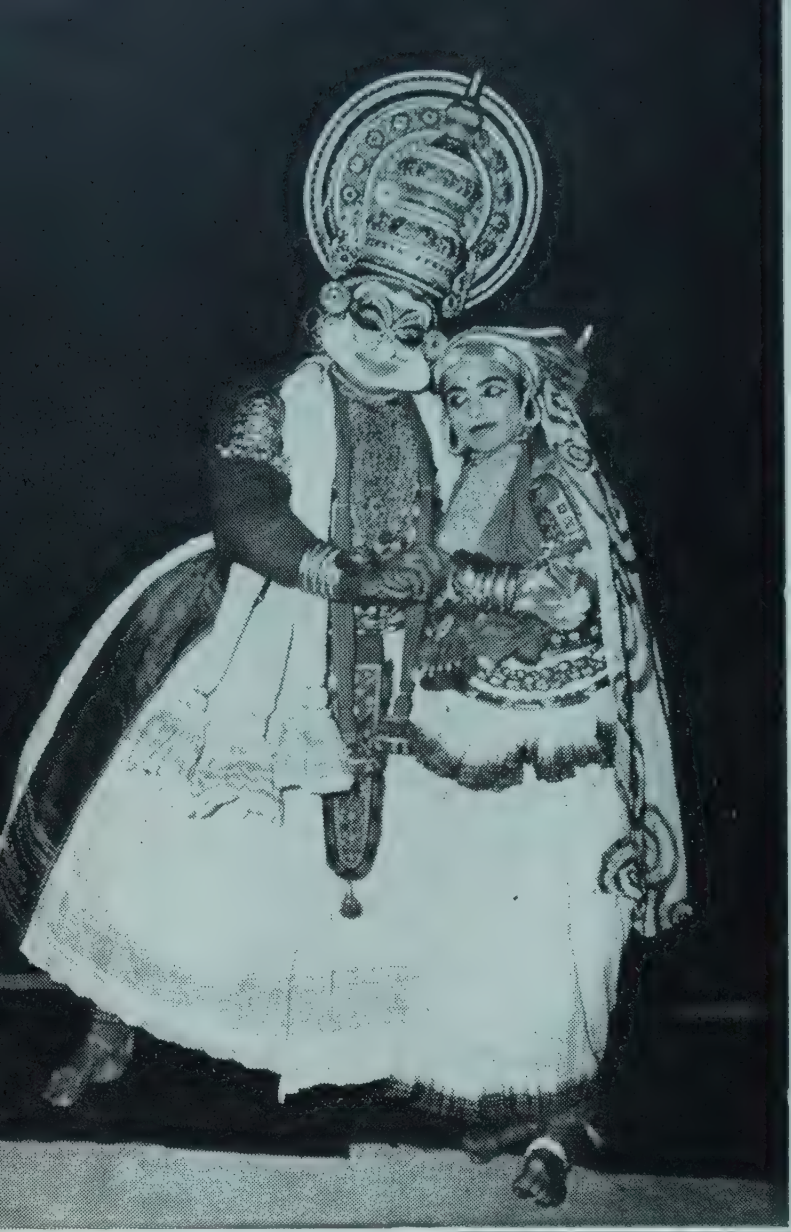
Facsimile service was introduced in 1969 for the first time in the country at Madras, facilitating simultaneous printing of a newspaper at Madras and Coimbatore. It was extended to Bangalore in 1970.

TELEPHONE SERVICES

India had a 50-line telephone exchange in Calcutta as early as 1881, *i.e.*, only five years after the telephone was invented by Graham Bell. The first telephone exchange with automatic lines was installed at

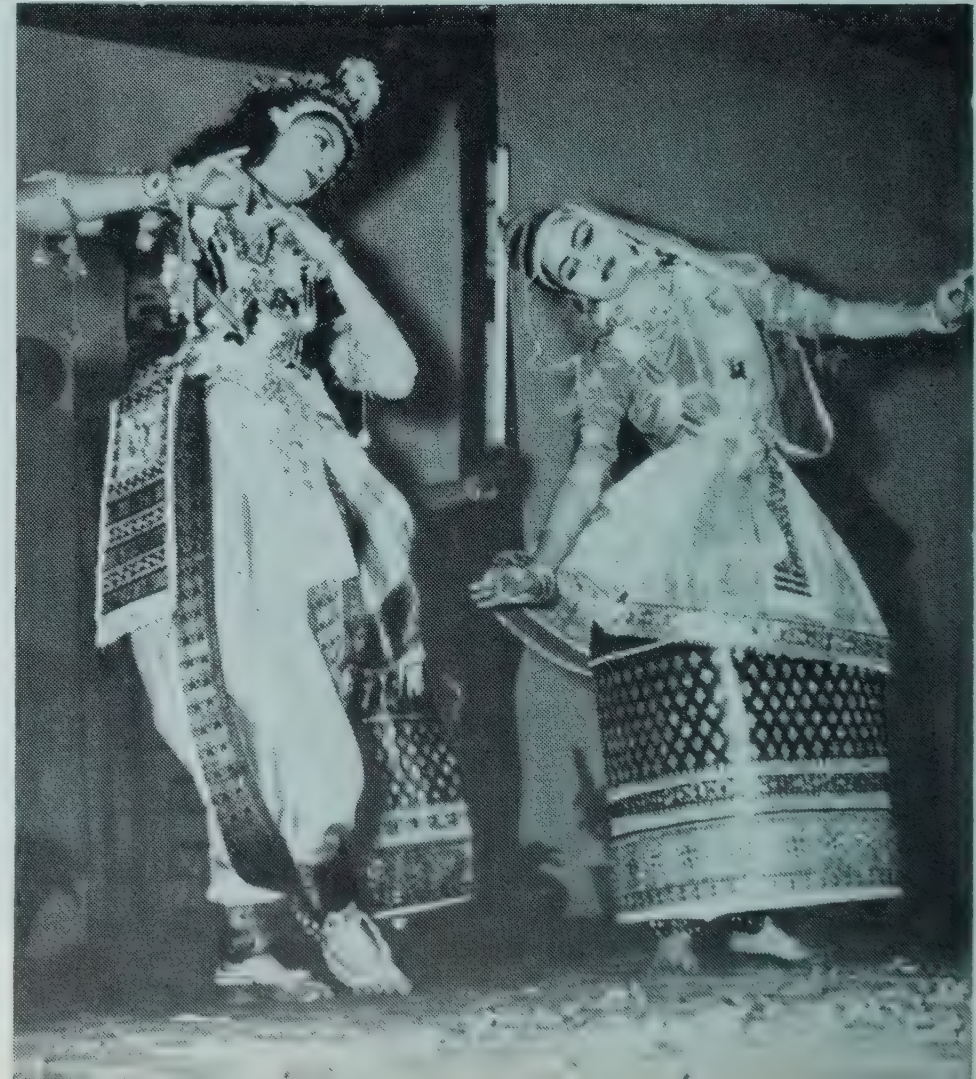


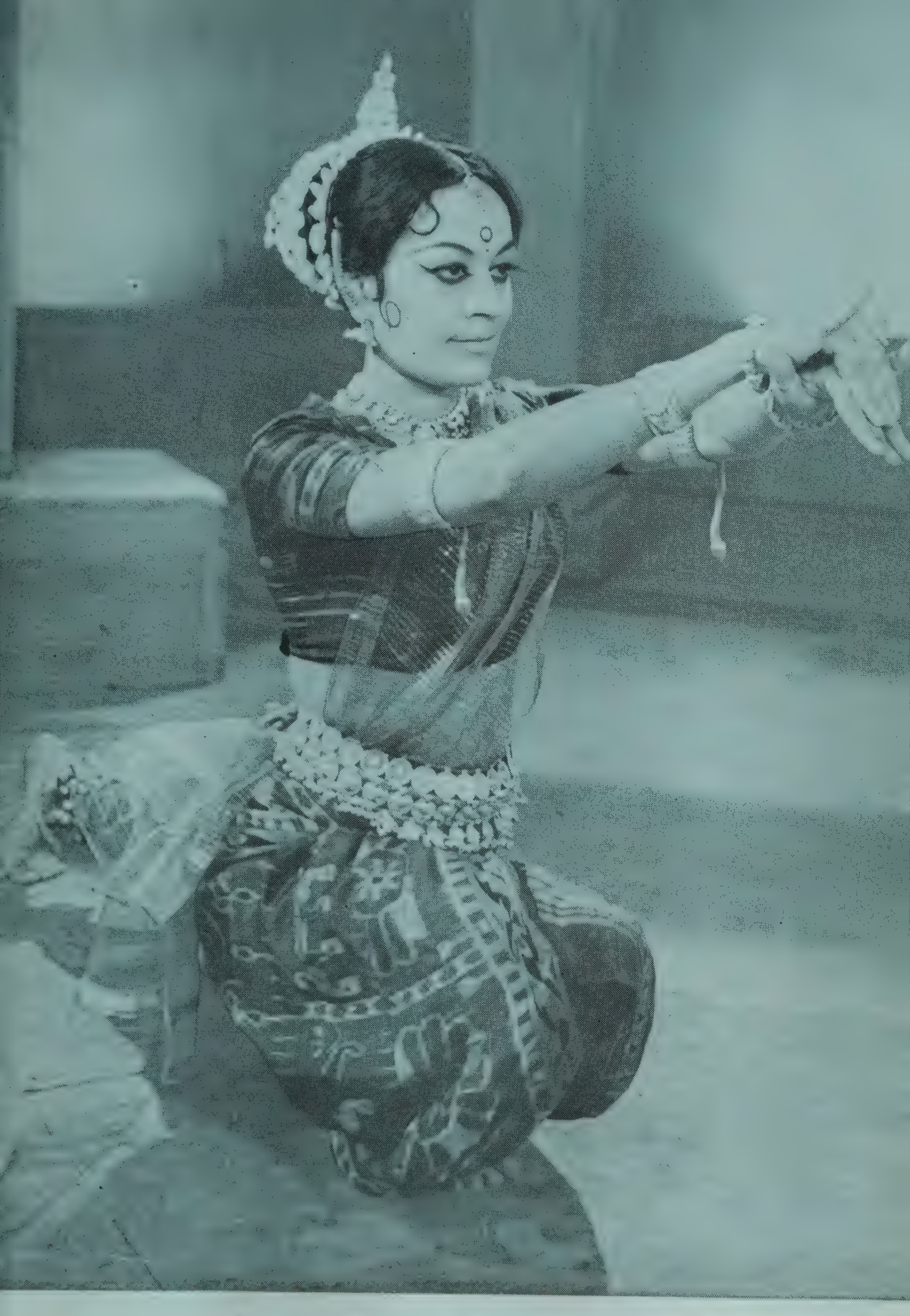
A pose in Bharata Natyam, a classical dance style of south India



A scene from Kathakali, the dance drama of Kerala

A Manipuri dance sequence—this lyrical style owes its name to the source of its origin, Manipur, in eastern India





A 'mudra' from Odissi, the temple art of Orissa

A pose from Kathak, the classical dance style of northern India

Kuchipudi, the classical style of Andhra Pradesh

Simla in 1913. It was after 1951, however, that telephone services made rapid progress. The number of telephone exchanges has increased by more than eight times and the number of telephones by more than nine times since 1951 as shown in Table 20.3.

TABLE 20.3 TELEPHONE STATISTICS

(As on 1 April)

	1951	1961	1971	1972	1973	1974
No. of telephone exchanges	540	1,374	3,967	4,205	4,441	4,704
No. of telephones (in lakhs)	1.68	4.63	13.00	14.00	15.10	16.29

The number of long distance public call offices was 5,009 on 31 March 1974. Trunk calls also increased from 71 lakhs in 1950-51 to 11.04 crores in 1972-73. The telephone revenue during the same period increased from Rs 9 crores to Rs 161.3 crores.

STD Service

Direct trunk dialling by subscribers (STD), first introduced between Kanpur and Lucknow in 1960, is now in operation between 68 pairs of cities. The number of effective calls on this service was over 6 crores in 1972-73.

'On Demand' Trunk Service

The 'On Demand' trunk service was introduced for the first time on Bombay-Bangalore route in 1971. Since then the service has been extended to 72 trunk routes in the country.

Ship-to-Shore Service

This service is available at Bombay, Calcutta and Madras. Under the service, subscribers can have telephonic contacts with ships at sea within 750 km.

OYT Scheme

The 'Own Your Telephone' Scheme (OYT), introduced in 1949, now covers all the telephone systems in the country. About 2,74,600 phones were provided under this scheme which yielded a revenue of Rs 76.21 crores till 31 March 1974.

Telephone Manufacture

The Indian Telephone Industries Ltd. (ITI), Bangalore, a public sector undertaking, was set up in 1948 to manufacture telecommunication equipment. It has now got factories at Bangalore, Naini (two units) and Srinagar. Another unit is being set up at Rae Bareli.

During 1973-74, it manufactured 2,55,905 telephone instruments besides other equipment. The total sales of ITI during the period amounted to Rs 44.95 crores including exports worth Rs 43.76 lakhs.

OVERSEAS COMMUNICATIONS

India's external telecommunication services are operated by the Overseas Communications Service (OCS) with its headquarters at Bombay.

The Service operates through four international gateway centres located in Bombay, Calcutta, Madras and New Delhi and provides overseas telegraph, telephone, telex, radio-photo and leased telegraph channel services. It also arranges broadcast transmission and reception facilities for the central government and news agencies.

With the commissioning of India's first satellite earth station, Vikram, at Arvi near Poona in 1971, the OCS is also operating through INTELSAT III satellite positioned over the Indian Ocean. The second satellite earth station being set up near Dehra Dun is expected to be commissioned in 1975.

Through a network of satellite and high frequency radio circuits, the OCS provides telegraph services to all countries, telephone services to 177 countries, telex services to 164 countries and radiophoto to 54 countries.

Leased Teleprinter Channels

The OCS leases teleprinter channels for the exclusive use of private subscribers. Several international airline companies, government departments, foreign embassies and international business houses are using this facility. At present, there are 56 leased private wire teleprinter channels in operation, 36 being handled *via* INTELSAT III.

Programme Transmissions

Facilities are provided on the overseas telephone system for the transmission and reception of programmes consisting of voicecasts by correspondents of broadcasting organisations for use on their broadcast networks.

Press Broadcasts

The OCS provides multi-address teleprinter news broadcast transmissions, on behalf of the Ministry of External Affairs, simultaneously to 66 Indian Consular posts around the world. Point-to-point telegraph news transmissions are also provided to a national news agency from Bombay.

The OCS also carries out reception of foreign radio-telegraph press broadcasts on behalf of news agencies. Reception of foreign broadcasts is at present handled on behalf of two Indian news agencies.

WIRELESS PLANNING AND CO-ORDINATION

The Wireless Planning and Co-ordination Wing of the union Ministry of Communications functions as the radio regulatory authority for all radio usages in the country and in that capacity assigns radio frequencies and issues operating licences to all official and non-official wireless users. Cases of radio interference are investigated and resolved through national and, if necessary, through international co-ordination. Problems about frequency usages for satellite communication and other space systems are also co-ordinated both at national and international levels.

A network of monitoring stations has been set up for frequency management and implementation of radio regulations. Twelve such stations are functioning at Ahmadabad, Ajmer, Bombay, Calcutta, Delhi, Gorakhpur, Hyderabad, Madras, Nagpur, Ranchi, Shillong and Srinagar.

Three units have been set up at Bombay, Calcutta and Delhi for carrying out region-wise inspection of licensed and authorised stations to ensure that they conform to the terms and conditions of the licences. One radio noise survey unit has also been established at Delhi to investigate the quantum of man-made radio noise responsible for interference with radio communications and suggest countermeasures.

21 LABOUR

In 1971, the working population of India was about 18.04 crores or about 32.92 per cent of the total population of India. Of the working population only 10 per cent was in the organised sector and the rest in the traditional sector. Cultivators and agricultural labourers formed the bulk of the traditional workers—43.34 per cent and 26.33 per cent respectively. Table 21.1 gives the distribution of working population according to activity and sex.

However, reliable data are available only for the organised sector of India's economy. Most of the acts passed by the government for the welfare of workers relate to workers in this sector. A number of social security schemes are also in operation for these workers. These include factory acts, wages acts, and social security schemes like employees' state insurance, employees' provident funds, death relief and family pension for workers and their families. Some acts and rules have also been framed for the unorganised sector. The Minimum Wages Act, 1948 is also applicable to many categories of workers in this sector.

In the organised sector of India's economy, the largest number of workers are employed in factories[1]. In 1971, the estimated average daily employment in working factories, for which figures were available, stood at 50.8 lakhs (provisional).

According to 1971 daily employment figures, Maharashtra had the largest number of factory workers (10,50,000) followed by West Bengal (8,39,000) and Tamil Nadu (4,60,000).

The average daily number of workers employed in all mines in 1971 was 6,31,000 (2,55,000 underground, 1,96,000 open-cast working and 1,80,000 surface). The corresponding figure for coal mines covered by the Mines Act, 1952 was 3,82,000 (2,28,000 underground, 43,000 open-cast working and 1,11,000 surface).

WORKING CONDITIONS

Working conditions in factories are regulated by the Factories Act, 1948 which prescribes a 48-hour week for adult workers and forbids the employment of children under 14 in any factory. Minimum standards of lighting, ventilation, safety, health and welfare services which the employers must provide in their factories have also been laid down. Factories with more than 250 employees have to provide canteens for their workers.

WAGES AND EARNINGS

Table 21.2 gives the average per capita annual earnings of factory workers drawing less than Rs 400 per month in different states and union territories.

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[1] Under the Factories Act, 1948, a factory is defined as any premises including the precincts thereof where 10 or more workers are working or were working on any day of the preceding twelve months and in any part of which power is used for the manufacture. Where power is not used the number of workers should be 20 or more.

A worker is defined in the Act as a person, employed directly or through any agency, whether for wages or not, in any manufacturing process, or in cleaning any part of the machinery or premises used for a manufacturing process or in any other kind of work incidental to or connected with the manufacturing process, or the subject of the manufacturing process.

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TABLE 21.1
DISTRIBUTION OF WORKING POPULATION (1971)

Category	Male		Female		Total	
	Total	Percentage	Total	Percentage	Total	Percentage
Total population	28,39,36,614	51.82	26,40,13,195	48.18	54,79,49,809	100.00
Total workers	14,90,75,136	52.50	3,12,98,263	11.85	18,03,73,399	32.92 2
(i) Cultivators	6,89,10,236	38.20	92,66,471	5.14	7,81,76,707	43.34
(ii) Agricultural labourers	3,16,94,984	17.57	1,57,94,399	8.76	3,74,89,383	26.33
(iii) Livestock, forestry, fishing, hunting and plantations, orchards and allied activities ..	35,13,848	1.95	7,82,953	0.43	42,96,801	2.38
(iv) Mining and quarrying	7,98,696	0.44	1,24,066	0.07	9,22,762	0.51
(v) Manufacturing, processing, servicing and repairs						
(a) Household industry	50,20,893	2.78	13,30,821	0.74	63,51,714	3.52
(b) Other than household industry ..	98,50,808	5.46	8,64,997	0.48	1,07,15,805	5.94
(vi) Construction	20,11,831	1.12	2,03,477	0.11	22,15,308	1.23
(vii) Trade and commerce	94,82,044	5.26	5,56,199	0.31	1,00,38,243	5.57
(viii) Transport, storage and communications ..	42,55,257	2.36	1,45,944	0.08	44,01,201	2.44
(ix) Other services	1,35,36,539	7.50	22,28,936	1.24	1,57,65,475	8.74
Non-workers	13,48,61,478	47.50	23,27,14,932	88.15	36,75,76,410	67.08

TABLE 21.2 AVERAGE PER CAPITA ANNUAL EARNINGS OF FACTORY WORKERS[2]

(*in rupees*)

State/Union Territory	1961	1966	1967	1968	1969	1970	1971[1]
Andhra Pradesh	1,149	1,454	1,601	1,830	2,088	2,117	2,349
Assam	1,599	2,130	2,097	2,108	2,340	2,363	2,481
Bihar	1,856	2,050	2,196	2,432	2,486	2,712	2,767
Gujarat	1,702	2,340	2,663	2,696	2,643	2,820	2,961
Haryana	—	1,712	2,064	2,219	2,436	2,597	2,569
Himachal Pradesh	1,288	2,115	2,950	2,851	2,521	2,691	2,849
Jammu & Kashmir	—	978	1,209	1,532	1,805	1,630	1,695
Karnataka	1,375	1,840	1,758	2,294	2,088	2,881	2,656
Kerala	1,152	1,724	2,009	2,125	2,467	2,419	2,730
Madhya Pradesh	1,816	2,118	2,308	2,691	2,939	2,912	3,013
Maharashtra	1,775	2,480	2,676	2,826	2,903	3,030	3,157
Orissa	1,180	2,001	2,325	2,333	2,143	2,899	3,242
Punjab	1,174[3]	1,636	1,659	1,690	2,070	2,159	2,219
Rajasthan	761	1,412	1,882	1,853	2,003	2,486	2,503
Tamil Nadu	1,465	2,032	2,204	2,297	2,442	2,583	2,670
Uttar Pradesh	1,264	1,825	1,978	2,157	2,200	2,293	2,471
West Bengal	1,410	2,024	2,175	2,382	2,675	2,761	3,028
Andaman & Nicobar Islands	1,234	1,621	1,566	1,791	2,024	2,170	2,302
Delhi	1,655	2,321	2,499	2,788	2,860[4]	2,885	3,042
Goa, Daman & Diu	—	2,105	1,751	2,242	2,075	2,305	2,190
Pondicherry	—	—	—	—	—	2,427	2,673
Tripura	—	1,271	1,897	1,945	2,010	2,223	2,790

[1] Provisional.

[2] Excludes railway workshops, food, beverages, tobacco, gins and presses groups but includes defence installations.

[3] Includes Haryana also.

[4] Revised.

Real Earnings

The variation in real earnings, after taking into account the rise in the consumer price index, is shown in Table 21.3.

TABLE 21.3 INDEX OF REAL EARNINGS OF WORKERS

(1961=100)

Description	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
General index of earnings	106	109	114	128	139	151	160	170	180	187[1]
All-India working class consumer price index	103	106	121	132	146	166	171	169	178	183
Index of real earnings	103	103	94	97	95	91	94	101	101	102[1]

[1] Provisional.

Regulation of Wages

The payment of wages is governed by the Payment of Wages Act, 1936 and the Minimum Wages Act, 1948 as amended subsequently. The former extends to the whole of India and applies to persons employed in any factory as defined in the Factories Act, 1948 and in any railway, receiving wages and salaries which average below Rs 400 a month. The Act has been extended to mines, plantations, docks, wharfs or jetties in the ports of Bombay, Calcutta and Visakhapatnam, oil-fields and certain other establishments.

Employers cannot withhold the wages earned by workers nor can they make any unauthorised deductions. Under the Payment of Wages Act, 1936 industrial establishments employing less than 1,000 workers must pay wages before the expiry of the 7th day and in other cases before the expiry of the 10th day after the last day of the wage period. Fines can be imposed for only those acts or omissions which have been approved by the appropriate government and must not exceed an amount equal to three paise in a rupee of the wage payable. Fines cannot be recovered in instalments or after the expiry of 60 days from the day of act or omission for which the fine is imposed. If the payment of wages is delayed or wrongful deductions are made, the workers or their trade unions can file claim.

Minimum Wages

Employers in India are free to hire an employee on any terms which the employee will accept. However, the Minimum Wages Act, 1948 seeks to prevent 'sweated labour' and exploitation of labour. It also empowers the appropriate government, central or state, to fix minimum wages of employees working in industries specified in the Schedule. Wage rates under the Act have been fixed and notified by the central and state governments in their respective spheres.

The Act also provides for revision of minimum wages already fixed, after suitable intervals. The central government revised the minimum wages in the following scheduled employment in 1973: (i) building and construction, stone breaking and stone crushing, (ii) agriculture, and (iii) manganese mines, barytes mines, bauxite mines and gypsum mines.

Bonus

Bonus is paid to the workers under the Payment of Bonus Act, 1965 which is applicable to every factory and establishment in which 20 or more persons are employed on any day during the accounting year. The Act requires the employers to pay a minimum bonus regardless of profits. The Payment of Bonus Act, 1965, as amended in 1972, raised the minimum bonus from 4 to 8⅓ per cent of a worker's salary or wage or Rs 80 (Rs 50 in the case of child worker), whichever was higher, for the accounting year commencing on any day in 1971. The Act, as further amended in September 1973, provided for the same bonus for the accounting year 1972 as in the accounting year 1971.

Occupational Wage Surveys

Surveys are conducted from time to time to collect information about occupational wage rates and earnings data, extent of overtime and incentive bonus schemes for workers employed in major manufacturing, mining and plantation industries. The first survey was conducted in 1958-59 and its general report published in 1963. The second was carried out in 1963-65 and a summary report of its findings was released in 1971. The general report of the survey is under print. In view of the usefulness of the data collected during the first two surveys, the National Commission on Labour recommended periodic surveys. The Third Occupational Wage Survey got under way on 1 April 1973.

Contract Labour

The Contract Labour (Regulation and Abolition) Act, 1970, which became applicable to the whole of India in February 1971, provides for the regulation of employment of contract labour in certain establishments and for its abolition in certain circumstances. It also fixes responsibility on the principal employer for payment of wages in case of defaults.

The Labour Bureau has conducted special studies on the extent and nature of contract labour in 21 different industries so far.

INDUSTRIAL RELATIONS

Industrial Disputes

In 1973, there were 2,924[1] industrial disputes, involving 21,02,268[1] workers, resulting in the loss of 1,77,92,231[1] mandays. The corresponding figures for 1972 were 3,243, 17,36,737 and 2,05,43,916 respectively.

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[1] Provisional.

Industrial Employment Standing Orders

Model rules have been framed by the central government under the Industrial Employment (Standing Orders) Act, 1946 for adoption by industrial establishments employing one hundred or more workers to ensure industrial peace. An amendment of the Act in 1961 empowered the appropriate government to extend it to establishments employing less than 100 workers. Another amendment in 1963 made the Model Standing Orders, framed by the appropriate government, operative in all industrial establishments covered by them until the Standing Orders framed by the industrial establishments are certified.

The Act now applies to all establishments in Andhra Pradesh, Gujarat, Maharashtra and West Bengal employing 50 workers or more. In Assam, it covers establishments (except mines, quarries, oil-fields and railways) which employ 10 workers or more. In Tamil Nadu, all factories registered under the Factories Act, 1948 are covered. In U.P., the Act has been extended to all member establishments of the Employers' Association of Northern India and of U.P. Oil-Mill Owners' Association, electric supply undertakings, water works and industrial establishments engaged in glass industry, oil mills registered as 'factories', establishments employing more than 50 workers in textiles, engineering, printing presses, ginning and pressing, flour, dal and rice mills, shellac industries and all industrial establishments voluntarily applying for certification of Standing Orders.

Code of Discipline

The Code of Discipline, as evolved at the Indian Labour Conference in 1958, has so far been accepted, apart from all the central employers' and workers' organisations, by 180 employers and 166 trade unions which are not members of any of the central employers' and workers' organisations. The Code is also applicable to public sector undertakings run as companies and corporations except those under the Railways and Ports and Docks. In the eight public sector undertakings managed by the Department of Defence Production, the Code has been made applicable to five undertakings with some modifications. In the remaining three, it is under implementation. The Code has also been applied, with certain modifications, to the insurance industry, the State Bank of India and the Reserve Bank of India. The Indian Banks' Association, the All-India Bank Employees' Association and the All-India Bank Employees' Federation also abide by the Code though an agreement on the criteria for recognition of the unions by them is yet to be finalised.

The Code of Discipline requires employers and workers to utilise the existing machinery for the settlement of disputes and avoid direct action. The implementation organisations, at the centre and in the states, assist in settling disputes. The central organisations of employers and workers, except the AITUC, have also set up committees for dissuading their affiliate members from filing appeals in higher courts against the judgments of industrial tribunals or labour courts in keeping with the letter and spirit of the Code. A procedure for screening cases, before appeals are filed by the public sector undertakings, was evolved in 1964.

Industrial Truce

To ensure industrial truce during Emergency in the country, an Industrial Truce Resolution was adopted by the central organisations of employers and workers in 1962 which laid down that in such an event there will be no interruption or slowing down of production; on the other hand, production will be maximised and defence effort promoted in all possible ways. A standing committee with the union Minister of Labour and Employment as chairman was set up in 1963 to review the working of the Truce Resolution. It has since been merged with the Central Implementation and Evaluation Committee.

National Arbitration Promotion Board

A National Arbitration Promotion Board was set up by the Government of India in 1967 to promote voluntary arbitration as a means of settling industrial disputes. The Board comprises representatives of the employers' and workers' organisations, public undertakings and central and state governments. In 1972, the Board decided that voluntary arbitration shall normally be the next step for resolving industrial disputes where mutual negotiations and conciliation have failed. Arbitration Promotion Boards have been set up by all the state governments and union territory administrations except Orissa, Punjab, Uttar Pradesh, West Bengal and Pondicherry.

Grievance Procedure

The grievance procedure framed under the Code of Discipline aims at redressing the day-to-day grievances of workers. Every establishment is expected to follow the procedure laid down in the Code. The Central Industrial Relations Machinery tries to persuade defaulting managements to frame grievance procedure in their undertakings.

Works Committees

Works Committees have been set up in industrial establishments employing one hundred or more workers. They consist of representatives of employers and workmen and provide a forum for negotiations at the factory level. At the end of 1973, Works Committees were functioning in 766 establishments in the central sector.

Joint Management Councils

The scheme of Joint Management Councils was introduced in 1958 on a voluntary basis to ensure closer association of workers in management on a formally defined basis. In January 1973, 80 such councils were functioning in public and private sector establishments.

Workers' Representation in Management

The central government have decided to introduce a scheme for the appointment of workers' representatives on the Boards of Management of a few public sector undertakings on a trial basis. As a beginning, a worker-director has been appointed in the Hindustan Antibiotics Ltd., Pimpri, and the nationalised banks.

Conciliation and Adjudication

The Central Industrial Relations Machinery, *i.e.*, the Central Chief Labour Commissioner's Organisation, is responsible for the prevention, investigation and settlement of industrial disputes under the Industrial Disputes Act. It also enforces some labour laws in the central sphere.

When industrial disputes cannot be resolved by mutual negotiations, the conciliation machinery steps in. It is compulsory for the conciliation officer to hold conciliation proceedings when an industrial dispute exists or is apprehended in a public utility service but it is optional in the case of other industrial establishments.

The Industrial Disputes Act also provides for voluntary or compulsory adjudication of industrial disputes. Seven Industrial Tribunals-*cum*-Labour Courts have been set up to adjudicate disputes in the central sphere. Of these, three are at Dhanbad, two at Bombay and one each at Calcutta and Jabalpur. The states have their own tribunals and labour courts. The Industrial Tribunal-*cum*-Labour Court at Delhi, under the Delhi Administration, also deals with some cases in the central sphere. National tribunals are set up by the central government when required.

NATIONAL COMMISSION ON LABOUR

To promote better industrial relations, the central government set up a National Commission on Labour in 1966 with Dr P.B. Gajendragadkar as chairman. Its report was presented to the government in 1969. Its government have accepted several recommendations made by the commission and taken follow-up action.

TRADE UNIONS

The Indian Trade Unions Act, 1926 provides for the registration of trade unions. Any seven or more members of a trade union, may, by subscribing their names to the rules of the trade union and by otherwise complying with the provisions of the Act with respect to registration, apply for registration of the trade union under the Trade Unions Act. The Act gives protection to registered trade unions in certain cases against civil or criminal action.

Table 21.4 shows the number and membership of the registered trade unions in India.

TABLE 21.4
REGISTERED TRADE UNIONS AND MEMBERSHIP

Particulars	Central unions			State unions		
	1955-56	1970[1]	1971[1]	1955-56	1970[1]	1971[1]
Number of unions on register ..	174	802[2]	847[2]	7,921	19,512[2]	19,865[2]
Number of unions submitting returns ..	105	320[3]	200[4]	3,901	6,683[3]	3,509[4]
Membership of unions submitting returns ..	2,13,000	7,10,751[3]	5,46,340[4]	20,62,000	35,30,318[3]	17,10,702[4]

[1] Provisional. [2] Estimated.
[3] Figures for Bihar, Kerala and Rajasthan are excluded.
[4] Figures for Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Uttar Pradesh, West Bengal and Delhi are excluded.

SOCIAL SECURITY

Social security schemes seek to provide adequate cover to the workers against such contingencies as ill health and industrial accidents. Some of the important schemes are described below.

Employees' State Insurance Scheme (ESI)

The Employees' State Insurance Act, 1948 applies to perennial factories using power and employing 20 or more persons. It provides for medical care, cash allowance during sickness, maternity and employment injury and pension for dependants on the death of a worker because of injury. Full medical care, short of hospitalisation, is also being progressively made available to the members of the family of the insured.

A 40-member Employees' State Insurance Corporation, an autonomous body consisting of MPs, representatives of the central and state governments, medical profession, employers and employees, administers the scheme.

As on 31 March 1974, there were 56 ESI hospitals with 8,559 beds, 24 ESI annexes with 442 beds and 755 dispensaries, including mobile dispensaries. About 41.6 lakh employees and 130.5 lakhs of their dependants were eligible for medical benefit under the scheme.

Employees' Provident Funds

Retirement benefits are available to the employees under the Employees' Provident Funds and Family Pension Fund Act, 1952. On 30 September 1973, it covered 131 industries all over India, except Jammu and Kashmir.[1] The Act does not apply to establishments registered under the Co-operative Societies Act, 1912, and employing less than 50 persons and working without the aid of power.

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[1] The state of Jammu and Kashmir enacted a separate legislation in 1961.

The employers contribute 6¼ per cent of the basic wages and dearness allowance, including the cash value of food concessions and retaining allowance payable to the employees. The employees make a matching contribution. The government have enhanced the rate of contribution to 8 per cent in the case of 89 industries employing 50 or more persons.

At the end of September 1973, the subscribers numbered 67,97,598 (24,86,003 in exempted and 43,11,595 in unexempted establishments). The receipts in provident funds, including interest earned, totalled Rs 2,956.76 crores, while the amount refunded was Rs 1,102.88 crores.

Gratuity Scheme

Under the Payment of Gratuity Act, 1972, employees in factories, mines, oil-fields, plantations, ports, railways, companies, shops or other establishments are entitled to gratuity. This is payable at the rate of 15 days wages for each completed year of service subject to a maximum of 20 months wages. The Act does not affect the right of an employee to receive better terms of gratuity under any award or agreement or contract with the employer.

Death Relief

A Death Relief Fund was set up in January 1964 to ensure a minimum of Rs 500 as financial help to the nominees or heirs of deceased members of unexempted establishments. The limit was raised to Rs 750 on 1 August 1969. The benefit has been extended to cover nominees or heirs of such persons whose pay does not exceed Rs 500 per month at the time of death.

Family Pension

To provide long-term financial security to the families of industrial employees in the event of their premature death, the Coal Mines Family Pension Scheme 1971 and the Employees' Family Pension Scheme 1971 were introduced from 1 March 1971. They apply to employees covered under the Coal Mines Provident Fund, Family Pension and Bonus Schemes Act, 1948 and the Employees' Provident Funds and Family Pension Fund Act, 1952. The schemes are financed by diverting a portion of the employers' and employees' contributions to the Coal Mines Provident Fund and the Employees' Provident Funds with an additional contribution by the central government. The operating cost of the two schemes is borne by the central government.

Coal Mines Provident Fund

Provident Funds in coal mines have been set up under the Coal Mines Provident Fund, Family Pension and Bonus Schemes Act, 1948. Except a few excluded categories, all persons employed in or connected with a coal mine, either directly by employers or through contractors, have to become subscribers to the fund when they have put in 60 days attendance (above-ground miners) and 48 days attendance (underground miners) in a calendar quarter.

They are compulsorily required to contribute 8 per cent of their emoluments. The employers also make a matching contribution. Subscribers can make a voluntary contribution up to 8 per cent in excess of their compulsory contribution. They can get non-recoverable advances for house-building, for financing life insurance policies and for purchasing shares of consumers' co-operative societies. Full refund of provident fund balance is made in cases of super annuation, retrenchment, total incapacity or death.

As on 30 September 1973, there were 4,20,072 subscribers to the provident funds in 1,360 coal mines and ancillary organisations.

Coal Mines (Attendance) Bonus

A bonus scheme has been framed under the Coal Mines Provident Fund, Family Pension and Bonus Schemes Act, 1948 to provide an incentive to workers to be more regular in attendance. Under the scheme, workers who put in specified days of attendance were paid bonus quarterly at 10 per cent of the basic earnings in addition to wages. From January 1973, the scheme has been amended and a worker is now entitled to bonus for the period for which he actually attends the mine.

As on 31 December 1973, the scheme covered 670 collieries all over India, except those in Jammu and Kashmir.

Workmen's Compensation

The Workmen's Compensation Act, 1923, as amended in 1962, requires the employers to compensate the workers against occupational diseases and injuries arising out of and in the course of employment. The Act has prescribed separate scales of compensation for death, permanent total disablement, permanent partial disablement and temporary disablement. The Act now covers workers whose monthly wages do not exceed Rs 500.

Maternity Benefits

Legislation covering the payment of maternity benefits, before and after confinement, is in operation in almost all the states. The Maternity Benefit Act, 1961 regulates the employment of women in certain establishments for certain periods before and after child birth and provides for maternity and other benefits. The Act applies for the present to mines, factories and plantations, including any such establishments belonging to government except those factories or establishments where provisions of the Employees' State Insurance Act, 1948 apply for the time being. It can be extended to other establishments by state governments, with prior approval of the central government.

LABOUR WELFARE

To enable workers to work in congenial surroundings, certain amenities, such as, canteens, rest shelters, creches, medical aid, educational and recreational facilities have been provided in factories, mines and plantations covered by the Factories Act, 1948, the Mines Act, 1952, the Plantations Labour Act, 1951 and the Bidi and Cigar Workers (Conditions of Employment) Act, 1966. Contract labour is also provided similar amenities under the Contract Labour (Regulation and Abolition) Act, 1970. Factories employing 500 or more workers have to appoint welfare officers to look after the welfare of the workers.

Mines

For the welfare of the workers in mines, Welfare Funds have been set up in coal, mica, iron ore, limestone and dolomite mines. The finances for the funds are raised through the levy of a cess on the coke and coal despatches from the collieries, an *ad valorem* cess as customs duty on mica exports, a cess on production in iron ore mining industries and a cess on the limestone and dolomite consumed by the iron and steel plants and cement and other factories. The welfare activities include housing, medical, educational and recreational facilities for workers and their dependants.

Dock Labour

Various welfare measures are in operation for the dock workers in Bombay, Calcutta, Cochin, Kandla, Madras, Marmagao, Visakhapatnam and other ports. These include housing, medical care, tuition fee concession for children and recreation and canteen facilities. Fair price shops and consumers' co-operative societies are also operating in some of the ports.

Plantation Labour

Under the Plantations Labour Act, 1951, all plantations provide housing accommodation to their resident workers and their families and maintain hospitals or dispensaries for them. Some of the plantations also run elementary schools for the education of the labourers' children. Training in useful handicrafts, such as, tailoring, knitting, weaving and basket-making and recreational facilities are provided in some of the tea estate centres with the help of the Tea Board.

The Act was amended in 1960 to check fragmentation of plantations by employers to escape their liabilities.

Motor Transport Workers

The Motor Transport Workers' Act, 1961 provides for the welfare of motor transport workers and for the regulation of their working conditions. The various schemes in operation include canteens, rest rooms, uniform hours of work and leave. The Act is administered by the state governments which have framed rules for its enforcement.

Welfare Funds in Central Undertakings

Welfare funds in central undertakings were created on a voluntary basis in 1966. Their scope is being enlarged to meet the social and educational needs of the workers.

WORKERS' EDUCATION

The object of the workers' education scheme is to create a well-informed and responsible labour force capable of organising and running trade unions on sound lines. The Central Board for Workers' Education, consisting of representatives of central and state governments, organisations of employers and workers and educationists, is a registered society for implementing the scheme. It has established 36 regional centres to cover important industrial centres. It also gives grants-in-aid to trade unions and institutions for workers' education.

The programme of workers' education is divided into three stages. Under the first stage, training is given to Education Officers who are wholetime employees of the Board. In the second stage, workers sponsored by trade unions are trained for three months by the Education Officers. These workers are called 'worker-teachers'. In the third stage, worker-teachers conduct classes for other workers at their places of employment. On 31 March 1974, the number of workerteachers and workers trained was 31,251 and 15,40,439 respectively.

WORKERS' SAFETY

National Safety Awards

Various schemes for the grant of National Safety Awards to factories, covered by the Factories Act, 1948, and ports have been instituted for good safety records. Each scheme consists of cash prizes and certificates of merit. Sixty-two factories, two stevedoring firms and two port authorities were given the awards in 1973-74.

Safety in Mines

The Mines Act, 1952 and the rules, regulations and bye-laws made thereunder, provide for the regulation of labour and safety in mines. The fatality per thousand persons in coal mines declined from 0·73 in 1956 to 0·60 in 1973. The rate for all mines was 0·51 in 1973 as against 0·44 in 1972.

National Safety Council

The National Safety Council was set up in 1960. Its main function is to conduct seminars, organise film shows in factories and distribute safety posters.

In December 1972, the Council's membership consisted of 702 corporate members and 137 individual members.

Shram Vir Awards

Shram Vir Awards have been instituted for workers in factories, mines, plantations and docks. They are given in recognition of meritorious performance, such as, suggestions leading to higher productivity or economy or greater efficiency. Thirty-four workers were given Shram Vir Awards in 1973-74.

EMPLOYMENT

At the beginning of the Fourth Plan the number of people employed in the organised sector was 166·30 lakhs. The figure was 188·24 lakhs in March 1973 showing an increase of about 22 lakhs. The bulk of the increase was in the public sector which accounted for 19·75 lakhs. However, as accurate estimates of employment and unemployment in the country were not available, the National Sample Survey undertook a comprehensive labour survey in its 27th round, the results of which are awaited.

Despite the substantial increase in the number of jobs in the organised sector, unemployment[1] has grown in the absolute as well as proportionate terms. This is because of the increase in the labour force as a result of increase in population.

Thus, in addition to the backlog to be covered, it is estimated that there would be 6·5 crore more people seeking jobs by 1986. This increase in the labour force alone will be more than 3½ times the present level of employment in the organised sector. This gives only a partial picture of the tasks ahead because there is the added problem of underemployment and thin employment, *i.e.,* employment at very low productivity level.

The Fifth Plan, therefore, regards the employment problem as the most important challenge to be met. It has identified some of the major causes for the continued increase in unemployment. Among the causes mentioned in the Fifth Plan are that the educational system and social tradition come in the way of people going in for employment requiring manual work, entrepreneurs shy away from less developed areas with the result that there is stagnation in employment in these areas. The investments in the previous Plans have not generated the job opportunities which were anticipated.

The policy prescriptions for the Fifth Plan are guided by this experience. The objective is to provide vastly expanded job opportunities at reasonable income levels. The increased investment programme in the Fifth Plan is expected to generate considerable new employment opportunities. The Fifth Plan stresses that programmes for investment should be so chosen as would be labour-intensive to the extent possible. Wage employment alone, it is recognised, is inadequate to meet the situation fully. The Fifth Plan, therefore, emphasises the need for greater self-employment opportunities. For this, major efforts would be made in agriculture, small industry, services, commerce and trade. The Fifth Plan also seeks to add more job opportunities for the poorer sections and to increase the earnings of those who are now only marginally employed. The experience of the special employment programmes of the Fourth Plan will be used in building up more employment opportunities in the Fifth Plan.

National Employment Service

The National Employment Service (NES) which was started in 1945 consists of a network of employment exchanges manned by trained personnel. The exchanges assist all employment seekers, specially the physically handicapped, ex-servicemen, scheduled castes and scheduled tribes, university alumni and professional and executive personnel. The NES also carries out other functions, such as, the collection and dissemination of employment market information and conducting studies in the field of employment and occupational research, which provide the basic data for framing policy on some aspects of manpower.

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[1] According to the Report of the Committee on Unemployment, the likely number of unemployed persons in 1971 may reasonably be taken as 1.87 crores including 90 lakhs as unemployed and 97 lakhs who work for less than 14 hours a week and who may be treated on par with the unemployed.

Under the Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959, it is obligatory for all establishments in the public sector and non-agricultural establishments in the private sector employing 25 or more workers to notify their vacancies (with certain exemptions) to the employment exchange and supply periodical information.

The number of employment exchanges in the country on 31 December 1973 was 517 including 52 University Employment Information and Guidance Bureaux. Table 21·5 gives figures relating to the activities of the exchanges.

TABLE 21.5 EMPLOYMENT EXCHANGES AND APPLICANTS

Year	No. of exchanges[2]	No. of registrations	No. of applicants placed in employment	No. of applicants on the live register	Monthly average no. of employers using the exchanges	No. of vacancies notified
1956	143	16,69,985	1,89,855	7,58,503	5,346	2,96,618
1961	325	32,30,314	4,04,707	18,32,703	10,397	7,08,379
1966	396	38,71,162	5,07,342	26,22,460	12,908	8,52,467
1971	437	51,29,857	5,06,973	50,99,919	12,910	8,13,603
1972[1,3]	453	58,26,916	5,07,111	68,96,238	13,154	8,58,812
1973[3]	465	61,45,445	5,18,834	82,17,649	13,366	8,71,398

[1] Includes 15 professional and executive employment offices.

[2] Excludes University Employment Information and Guidance Bureaux.

[3] Revised.

Administration

The day-to-day administrative control over the employment exchanges was transferred to the state governments in November 1956. From April 1969, the states were also made financially responsible for the manpower and employment schemes. The role of the central government is limited to policy-making, co-ordination of procedure and standards, and the development of various programmes on an all-India basis.

Vocational Guidance

Vocational guidance and employment counselling services are provided to youth (applicants without any work experience) and adults (with specific work experience) at 229 employment exchanges and all the University Employment Information and Guidance Bureaux.

In order to divert educated youth to channels of gainful employment, vocational guidance and career advising programmes of the Directorate-General of Employment and Training (DGE&T) have been expanded and streamlined. A career study centre at the Central Institute for Research and Training provides career literature for the occupational orientation of the youth and other guidance seekers.

Exchanges for Physically Handicapped

There are 11 special exchanges for the physically handicapped. They are functioning at Ahmadabad, Bangalore, Bombay, Calcutta, Chandigarh, Delhi, Hyderabad, Jabalpur, Kanpur, Madras and Trivandrum. Till December 1973, 37,140 applicants had registered with them out of whom 11,464 persons had been placed in employment.

Six vocational rehabilitation centres for the physically handicapped are functioning at Bombay, Delhi, Hyderabad, Jabalpur, Kanpur and Ludhiana. Till December 1973, they admitted 4,009 persons out of whom 1,325 were rehabilitated.

Training Programmes

In an endeavour to build up the career of young persons in their adolescence, the DGE&T has evolved various training programmes. These are formulated within the national framework as far as possible and also in collaboration with foreign countries.

Craftsmen's Training

Industrial training institutes have been set up all over the country to impart skills in 32 engineering and 22 non-engineering trades to youngmen and women in the age group 15-25. At present, 357 such institutes are providing free training facilities to about 1·56 lakh craftsmen.

To promote the efficiency of craftsmen-trainees, the DGE&T has introduced aptitude tests which are applied for the selection of craftsmen-trainees in engineering trades. During 1973, aptitude tests for 85,284 candidates were conducted in 15 engineering trades for the selection of trainees in 83 institutes in 8 states. The aptitude testing programme has also been extended to industries in different regions for selecting suitable candidates as apprentices under the Apprentices Act, 1961.

The duration of the courses varies from one to two years for engineering trades, but is one year for all non-engineering trades. Successful candidates are awarded National Trade Certificates.

Besides 54 trades, the state governments and union territories have introduced training in additional trades to meet the requirements of the new industries established in their areas.

The educational qualification for admission in the industrial training institutes in most of the trades under the Craftsmen's Training Scheme is 8th standard or two classes below the matriculation or its equivalent. For some trades, such as, electronics, radio and TV, electricians, draftsmen (mechanical/civil) and surveyors, the minimum qualification is a pass in the matriculation or its equivalent with mathematics and science.

The industrial training institutes have also started a scheme to train Other Ranks in the Indian Army to facilitate their rehabilitation in civil life on their release or retirement from service. Under the scheme introduced from August 1972, provision has been made to train 1,000 army personnel every year.

Craft Instructors' Training

Seven central training institutes at Bombay, Calcutta, Hyderabad, Kanpur, Ludhiana, Madras and New Delhi train craft instructors required by the Industrial Training Institutes and the Apprenticeship Training Establishments. The institute at New Delhi is exclusively meant for women instructors. The seven institutes, with an admission capacity of about 1,200, impart training in a number of trades. Facilities for the training of instructors have also been provided in chemical group of trades at the Bombay institute, and in hotel and catering at the Hyderabad institute. Facilities for training in printing, weaving and farm mechanics trades are also being provided at institutes in Kanpur, Bombay and Ludhiana respectively.

Advanced Training to Craftsmen

The Advanced Training Institute, set up at Madras in 1971, conducts advanced training courses for highly skilled craftsmen from industry in specialised areas of tool room practice and assists the industry in tool design, tool and die making and heat treatment. During the Fifth Plan, it is proposed to set up satellite centres at various Central Training Institutes where facilities generated at this Institute will be made available to craftsmen living in those regions.

Foremen's Training

An institute to train foremen was established in Bangalore in 1971. It conducts training programmes for existing and potential shop foremen and supervisors in theoretical and managerial skills and for workers from industry in advanced technical skills. During the Fifth Plan, it is proposed to make available the facilities generated at this Institute through satellite centres to be set up in the Central Training Institutes.

Apprenticeship Training Scheme

The Apprentices Act, 1961 makes it obligatory for employers in specified industries to engage apprentices. The training consists of basic training followed by on-the-job or shop-floor training in accordance with standards prescribed by the government in consultation with the Central Apprenticeship Council. So far, 201 industries and 61 trades have been brought under the Act. Over 60,300 apprentices were undergoing training on 30 September 1973. The Apprentices (Amendment) Act, 1973 provides for reservation of seats for scheduled caste and scheduled tribe candidates as well as for improving the employment potential of engineering graduates and diploma holders.

Part-time Training to Industrial Workers

Along with the expansion of facilities for the training of craftsmen in institutes and through the apprenticeship programme, evening classes have been organised to improve the standards of industrial workers who may enter the industry without any systematic training.

Industrial workers, irrespective of their age, but possessing two years workshop experience in a particular trade and sponsored by their employers are eligible for admission to this course. The period of training is two years and the fee charged is Rs 2 per month.

Training in Industrial Relations and Labour Laws

The Indian Institute of Labour Studies, New Delhi, which was set up in 1964, imparts in-service training in industrial relations, personnel management and techniques of enforcement of labour laws. In view of the growing importance of training and research in labour subjects and their bearing on social and economic development of the country, the scope of the Institute is being enlarged substantially. For this purpose, a National Labour Institute is to be set up at Poona.

Vocational Training Research

A Central Staff Training and Research Institute was set up at Calcutta in 1970 for developing indigenous training techniques. The Institute conducts training programmes for officers and staff of the central and state governments as well as from industry who control, regulate and direct training programmes. It also carries out research in trades and training techniques, prepares training aids and advises industry on industrial training methods.

COMMITTEE ON AUTOMATION

A Committee on Automation was set up by the central government in 1969 with Shri R. Venkataraman as chairman to review the effect of automation in enterprises in which it has already been introduced. It was also to suggest criteria for determining areas and fields in which automation, including computers, may be permitted and to recommend safeguards for avoiding or minimising any harmful social effects of automation. Its report was presented to the government in 1972.

22 HOUSING

The problem of housing in India is a complex one requiring finances on a huge scale and is dependent for its solution on the concerted efforts of individuals, co-operatives and central and state governments to be planned and executed over a number of years. There is acute shortage of housing in urban and rural areas and much of the available accommodation is qualitatively of sub-standard variety. The shortage in urban areas has been largely on account of considerable increase in population since 1921, the steady shift of population from the rural to the urban areas, the haphazard growth of towns owing to lack of proper town planning and the comparative inability of private enterprise to keep pace with the growing demand.

Though no precise data are available about the shortage of housing in the country, the 1971 census placed the shortage at 1.45 crore units; 29 lakhs in urban areas and 1.16 crores in rural areas. A recent study by the National Buildings Organisation showed that, after taking into account the increase in households owing to the natural growth of population and net addition to the housing stock during 1971-74, the housing shortage on the eve of the Fifth Plan was estimated at 1.56 crore units; 38 lakhs in urban areas and 1.18 crores in rural areas.

According to the 1971 census, the usable housing stock was 8.25 crore units (6.84 crores in 1961) for the use of the entire population of 54.8 crores divided into about 9.7 crore households. Of these, 6.64 crore units (5.71 crores in 1961) were in rural areas and 1.61 crore units (1.13 crores in 1961) in urban areas.

POLICY

Responsibility for the formulation of the housing policy is borne by the central and state ministers in charge of housing, urban development and town planning. A review of the policy was made by the state Ministers of Housing at two conferences held in 1973 and 1974.

The major recommendations of the 1973 conference were: (i) the scheme for provision of house-sites to landless workers in rural areas should continue in the central sector during the Fifth Plan. Landless persons in possession of house-sites should be conferred home-stead rights and provided with documentary legal proof tenable in a court of law. The Land Acquisition Act should be amended to simplify procedures to cut down delays; (ii) there should be scope for extension of the central scheme for environmental improvement of slum areas on merit also to such cities and towns which have a population of less than 3 lakhs; (iii) rural development should be considered as a compact whole, including housing, water-supply, link roads, education, health, sanitation, employment and recreation, and all round development of the rural areas should be taken up; (iv) the Housing and Urban Development Corporation (HUDCO) should be allowed to accept government guarantee as security even in respect of loans which carry a rate of interest higher than 7 per cent; (v) for loans from HUDCO the present limit of a minimum of 25 per cent economically weaker section content in terms of financial outlay in a scheme in order to qualify for the concessional rate of interest of 6½ per cent (6¾ per cent minus ¼ per cent rebate for prompt repayments) may be further reduced; (vi) money that may become available from the World Bank for the development of site and services may be routed through HUDCO; (vii) keeping in view the importance of tourist areas, special central assistance should be given for the development and improvement and redevelopment of such areas; and (viii) state governments should provide at least 5 per cent for housing and urban development sectors out of the state plan outlay.

The important recommendations of the 1974 conference were: (i) a National Commission may be set up to examine and recommend the national housing policy to be adopted by the central and state governments; (ii) a high level committee consisting of ministers may be set up to examine the details regarding social housing schemes now under implementation; (iii) a high level committee consisting of ministers may be set up to examine and recommend how best the Land Acquisition Act should be amended to provide for speedier and easier acquisition of land within the urban areas and urbanisable limits, keeping in view the Twenty-fifth Amendment to the Constitution; (iv) a separate Rural Finance Corporation may be established to enable taking up of construction of rural housing, and to attend to other rural development programmes; (v) the central government should retain the schemes under the Minimum Needs Programme in the central sector during the Fifth Plan and continue to give 100 per cent grant assistance to all the schemes outside the state plan outlay; (vi) state governments should adopt economic specifications in public buildings and the National Buildings Organisation should set up a working group to evolve economic specifications; (vii) state governments should take steps to locate and manufacture suitable building materials to reduce cost and save scarce materials like cement and steel; and (viii) state governments should send to the central government details and progress of the scheme under the Minimum Needs Programme and monitor its implementation.

HOUSING FINANCE

Most of the funds for housing are provided by the central and state governments. The Life Insurance Corporation of India also supplements their efforts. The central government has also constituted a Revolving Fund of Rs 200 crores for housing and urban development. The Fund is administered by the Housing and Urban Development Corporation, which advances loans to state governments, State Housing Boards and Housing and Urban Development Authorities.

Investment and Achievements

In the first three Five Year Plans and the three Annual Plans, a total of Rs 324.27 crores were spent in the public sector on various social housing schemes. During this period, about five lakh dwelling units were constructed. In the private sector, an investment of Rs 2,400 crores was estimated to have gone into housing and other private construction. The expenditure in the Fourth Plan was estimated at Rs 140.8 crores as against the outlay of Rs 124.5 crores for state sector schemes and Rs 36.68 crores as against the provision of Rs 47.8 crores for central sector schemes. The number of housing units constructed up to April 1974 was over one lakh in the state sector and 8,624 in the central sector up to 31 March 1973. The Life Insurance Corporation of India advanced loans amounting to Rs 70 crores during the Fourth Plan. In addition, in the last two years of the Plan, the LIC gave a loan of Rs 1 crore to Himachal Pradesh, Manipur, Meghalaya, Nagaland and Tripura. The Housing and Urban Development Corporation sanctioned loans amounting to Rs 76 crores for 89 housing schemes (including 4 schemes for manufacturing building materials) in 16 states and 2 union territories involving construction of over 60,000 housing units and development of over 16,000 plots of various categories, the bulk of which were aimed to benefit weaker sections of the society. In the private sector, an investment of about Rs 2,140 crores was estimated to have gone in the housing and other private construction during the Fourth Plan.

In the Fifth Plan, a provision of Rs 343 crores has been made for the state sector and Rs 237.16 crores for the central sector schemes. In addition, about Rs 450 crores are likely to be spent by central departments like the Railways, Posts and Telegraphs, Defence, Port Trusts and central government public undertakings. The investment in housing by the private sector is expected to be Rs 3,640 crores.

RESEARCH

Research into building techniques and into new methods of house construction is carried out by the National Buildings Organisation (NBO), which was set up by the Government of India in 1954 as an advisory and co-ordinating body for all technical matters concerning building and housing. The NBO also sponsors research work on various aspects of building construction, improvement of utilization of building materials and on the sociological and economic aspects of housing. Five rural housing wings at Anand, Bangalore, Calcutta, Chandigarh and New Delhi are functioning under NBO for research, training and extension work in rural housing and village planning.

The organisation, which is the national agency for collection of building and housing statistics, also functions as the United Nations regional housing centre for ECAFE region.

The NBO has set up a permanent building exhibition in Nirman Bhavan, New Delhi, where building materials and products available in the market and also new and improved materials evolved by research organisations are on display.

PRODUCTION OF MATERIALS

The Hindustan Housing Factory at New Delhi, a Government of India company, apart from manufacturing pre-fabricated homes, specialises in producing several other items, such as, pre-fabricated reinforced cement concrete components, pre-stressed cement concrete transmission poles, foam concrete panels, and partition and insulation blocks. It undertakes wooden joinery work and has standardised certain pre-cast building components for use by individual house-builders and construction agencies.

CONSTRUCTION AGENCY

The National Buildings Construction Corporation, New Delhi, a public sector undertaking, undertakes construction works on behalf of the central government and its various agencies. It also owns a mechanised brick plant in Delhi.

SOCIAL HOUSING SCHEMES

About 5,30,000 houses had been constructed up to 30 April 1974 by state governments and administrations in union territories under the various social housing schemes, excluding slum clearance and improvement scheme. In addition, over 11,000 hectares of land were acquired by state governments and over 6,000 hectares of land developed for housing purposes.

A brief resume of the progress of various schemes from their inception is given below.

State Sector Schemes

The Integrated Subsidised Housing scheme, which came into operation in 1966, is intended for low paid industrial workers and other economically weaker sections of the community whose wages or incomes do not exceed Rs 350 per month. Under the scheme, houses are constructed and let out on rents subsidised to the extent of 50 per cent of the approved cost of construction. Up to 30 April 1974, 1,81,818 houses had been constructed.

The Low Income Housing scheme, started in 1954, enables persons (or their co-operatives) whose income does not exceed Rs 7,200 per annum to get loans for constructing houses. The amount of the loan is restricted to 80 per cent of the cost of developed land subject to a maximum of Rs 14,500. Up to 30 April 1974, construction of 2,36,866 houses had been completed.

The Middle Income Group Housing scheme, launched in 1959, is generally financed from the funds made available by the Life Insurance Corporation of India as loans to state governments. In the union territories, the funds are provided by the central government. Loans are available under the scheme to individuals whose income is in the range of Rs 7,201 to Rs 18,000 per annum for the construction of houses. The loans are restricted to 80 per cent of the cost of a house subject to a maximum of Rs 27,500. Loans are also given to eligible persons for the purchase of ready built houses. Up to 30 April 1974, 31,520 houses had been constructed.

The Rental Housing scheme for state government employees was introduced in 1959. Under the scheme, state governments construct residential accommodation and rent it out to their employees. Up to 30 April 1974, 23,274 houses had been completed.

The Village Housing Projects scheme provides for the grant of loans for construction of houses by villagers to the extent of 80 per cent of the cost of construction, subject to a maximum of Rs 4,000 and also for providing streets and drains to improve the environmental hygiene of the villages. Up to 30 April 1974, 53,697 houses, about 118 km of streets and 138 km of drains had been completed.

The Land Acquisition and Development scheme, started in 1959, enables state governments and administrations in the union territories to acquire and develop land in urban areas so that developed plots can be made available at reasonable prices to intending house builders, particularly those in the lower income groups. Its object is to stabilise land prices, rationalise urban development and promote self-contained composite housing colonies. Up to 30 April 1974, over 11,000 hectares of land had been acquired and over 6,000 hectares of land developed by various state governments.

Central Sector Schemes

A scheme for providing free house-sites for landless workers is being implemented since 1971. The Government of India provides full assistance to state governments for meeting the expenditure on development of house-sites and acquisition of land, wherever necessary, for providing free house-sites to landless workers in rural areas. The maximum size of a house-site which is allowed to a landless family is normally 100 sq. yd. Up to 31 March 1974, projects of 15 state governments, involving central assistance of Rs 19.77 crores, had been approved for the provision of 8,85,502 house-sites. Besides, 10 states, namely, Bihar, Gujarat, Karnataka, Kerala, Maharashtra, Orissa, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal, have adopted legislative measures to confer home-stead rights on landless workers who are in occupation of such sites in rural areas.

From the commencement of the Fifth Plan, the scheme has been transferred to the state sector. State governments can now scrutinise and sanction the projects, in accordance with the provisions of the scheme, in their respective jurisdiction as one of the Minimum Needs Programme. In the Fifth Plan, Rs 108.16 crores have been set aside, under the Minimum Needs Programme for annual plan allocations to the states, for provision of house-sites to landless workers in rural areas. It is expected that about 40 lakh landless workers will be provided with free house-sites during the Fifth Plan period.

The Subsidised Housing scheme for plantation workers is in operation since 1970. Under the scheme, the central government pays 50 per cent loan and 37½ per cent grant for construction of accommodation for allotment free of rent to plantation labour, which is concentrated in six states, namely, Assam, Karnataka, Kerala, Tamil Nadu, Tripura and West Bengal. Co-operatives of plantation workers receive financial assistance up to 90 per cent of the approved cost of a project, 65 per cent as loan and 25 per cent as subsidy. The number of plantation workers eligible for housing facilities is estimated to be 5,14,500, of whom 3,16,000 have been provided with housing facilities.

The central government also has a scheme under which it grants loans to its employees, including those governed by the Payment of Wages Act, on the basis of a welfare scheme sanctioned in 1956 for building houses and for the purchase of ready built houses. Till 31 March 1974, loans totalling Rs 50.17 crores had been approved.

URBAN DEVELOPMENT

In India, the concept of planned urban development is of a recent origin. Although development schemes for urban areas were drawn up and implemented from the beginning of the five year plans, the need for planned urban development was recognised only in the Third Plan when an allocation of Rs 3 crores was made by the central government for giving grants to state governments for this purpose. Till March 1969, the scheme for urban development continued as a centrally sponsored programme. From 1 April 1969 the preparation of Master and Regional plans was transferred to state governments with the central government acting only in an advisory capacity. In the Fourth Plan, an allocation of Rs 73.47 crores was made for the urban development programme. An outlay of Rs 90 crores has been made in the Fifth Plan for the Housing and Urban Development Corporation under the central sector.

TOWN AND COUNTRY PLANNING ORGANISATION

To accelerate the pace of urban development, the Town and Country Planning Organisation in the union Ministry of Works and Housing assists the state governments in organising their Town and Country Planning Departments, preparation of development plans for cities and regions, formulation of comprehensive town and country planning legislation, evaluation and progress of town planning projects, formulation of traffic and transportation plans and landscape planning. The organisation is also connected with the preparation of inter-state regional plans and development plans for backward regions.

Important Programmes

Among the important programmes on which work is in progress is the National Capital Regional Plan around Delhi which covers an area of about 30,000 sq. km in the union territory of Delhi and parts of Haryana, Rajasthan and Uttar Pradesh. The plan envisages integrated regional development programmes for drinking water supply, drainage, power supply, community facilities and services over the whole region. A sum of Rs 20 crores has been earmarked in the Fifth Plan for supplementing the resources of state governments for implementing the plan.

Work is also under way in the region covering parts of Bihar, Madhya Pradesh, Orissa and West Bengal.

A network of mass rapid transit system (MRTS) for Delhi urban area has been identified by the metropolitan transport team of the Planning Commission. The Metropolitan Transport Project (Railways) is conducting techno-economic and engineering feasibility studies of the MRTS network. The Town and Country Planning Organisation is carrying out traffic studies for MRTS.

Development of Metropolitan Cities

For development of metropolitan cities and areas of national importance, a new scheme has been included in the Fifth Plan. Under the scheme, the central government will supplement the efforts of state governments in this direction. An outlay of Rs 230 crores has been provided for the Fifth Plan period.

In Delhi, an Urban Art Commission has been set up for preserving, developing and maintaining the aesthetic quality of urban and environmental design within Delhi.

Slum Clearance and Improvement Scheme

The scheme was introduced in 1956 as a centrally-sponsored programme under which financial assistance was given to states and union territories for the clearance and improvement of slum areas and rehousing of slum dwellers whose income does not exceed Rs 350 per month. From 1 April 1969 the scheme was transferred to states.

Environmental Improvement of Slums

To bring about improvement of environmental conditions in slum areas, a programme known as the Central Scheme for Environmental Improvement in Slum Areas was launched in 1972 in 10 cities, namely, Ahmadabad, Bombay, Bangalore, Delhi, Hyderabad, Kanpur, Lucknow, Madras, Nagpur and Poona. During 1973-74, ten more cities, *viz*., Calcutta, Cochin, Cuttack, Gauhati, Indore, Jaipur, Ludhiana, Patna, Rohtak and Srinagar were also covered under the scheme. The Bustee Improvement scheme in Calcutta was also made part of the programme. The concerned state governments were given full financial assistance for the provision of drinking water, sewerage and drains, community bath and latrines, street lighting and widening and paving of existing lanes in slum areas. Till 31 March 1974, projects worth over Rs 24.60 crores had been sanctioned.

The scheme has been transferred from the central sector to the state sector from 1 April 1974 to be implemented by state governments as one of the Minimum Needs Programme. A sum of Rs 105.47 crores has been provided in the Fifth Plan for this purpose.

Jhuggi and Jhonpri Removal Scheme

The Jhuggi and Jhonpri Removal scheme is designed to provide alternative accommodation to unauthorised occupants of government and public lands in Delhi and New Delhi. By 31 December 1973, 58,956 houses and plots had been sanctioned under the scheme.

Delhi Land Acquisition Scheme

A scheme known as the Large Scale Acquisition, Development and Disposal of Land is in force in Delhi. Under the scheme, land measuring about 14,390 hectares has been acquired so far. Of this, about 9,137 hectares have been allotted to the Delhi Development Authority and about 4,233 hectares have been allotted to various government, semi-government and other organisations.

23 STATES AND UNION TERRITORIES

ANDHRA PRADESH

Area: 2,76,814 sq. km *Population:* 4,35,02,708
Capital: Hyderabad *Principal languages:* Telugu and Urdu

AGRICULTURE Agriculture is the main occupation of over 70 per cent of the people of Andhra Pradesh. Thirty-one per cent of the cultivated area is irrigated. The state is surplus in foodgrains, particularly rice. Other important crops are tobacco, oilseeds, cotton and sugarcane. The production of foodgrains, sugarcane and oilseeds was 67.11, 11.07 and 11.08 lakh tonnes respectively and of cotton 1.12 lakh bales in 1972-73. The state accounts for about 50 per cent of the country's entire production of castor and 95 per cent of Virginia tobacco.

Forests cover 22.5 per cent of the state's area. Important forest products are timber, bamboo and casuarina.

INDUSTRY The state is endowed with a rich variety of minerals. In fact, Andhra Pradesh has a virtual monopoly of quality 'chrysotile asbestos' in the country. It accounts for about 75 per cent of India's total production of barytes. Other important minerals found are copper ore, manganese, mica, coal and limestone. The state ranks sixth in manganese ore production in the country.

Several major industries have been established in the state, especially around Hyderabad and Visakhapatnam. These produce machine tools, synthetic drugs, pharmaceuticals, heavy electrical machinery, ships, fertilizers, electronic equipment and aeronautical parts.

IRRIGATION AND POWER Important irrigation schemes implemented during the past 25 years include Nagarjunasagar project, Prakasam barrage, Tungabhadra low level canal, Kurnool-Cuddapah canal, Kaddam project, Romperu Drainage project and Upper Penner project in addition to numerous other medium and minor irrigation schemes.

Important power projects are the Machchkund, Upper Sileru and Nizam Sagar hydel power schemes and Nellore, Ramagundam and Kothagudam thermal stations. The per capita consumption of electricity, which was 2.5 kwh at the beginnig of the First Plan, rose to 44 kwh at the end of the Fourth Plan. The installed capacity, both hydel and thermal, was 888 mw in 1973-74. The state's prestige power project, the Srisailam hydro-electric project, is under construction. The first unit is expected to be commissioned in 1977. Till March 1972, 9,252 hamlets had been electrified.

GOVERNMENT *Acting Governor:* S. Obul Reddy

Note: Area figures for all states and union territories are provisional. They are as on 1 July 1971 except Andaman and Nicobar Islands where they relate to 1 January 1966.

Council of Ministers[1]

Chief Minister: J. Vengal Rao
Cabinet Ministers: Pidatala Ranga Reddy, P. Basi Reddy, J. Chokka Rao, K. Rajamallu, Sagi Suryanarayana Raju, Mohamed Ibrahim Ali Ansari, V. Krishna Murthy Naidu, Battina Subba Rao, L. Lakshmana Das, G. Rajaram, Chella Subbarayadu, M.V. Krishna Rao, C. H. Venkata Rao, T. Anjaiah and P. Narasa Reddy.
Ministers of State: C. H. Devananda Rao, Smt Lakshmi Devi, B. Srirama Murthy, Anam Venkat Reddy, V. Purushotham Reddy, P. Mahendra Nath, D. Munuswamy, S. Venkatram Reddy. Asif Pasha and K.V. Kesavulu.

Legislative Council[1]

Chairman: N. Venkatasubbiah
Deputy Chairman: Syed Mukkassir Shah

Legislative Assembly[1]

Speaker: R. Dasaratharam Reddy
Deputy Speaker: Syed Rahmat Ali

High Court[1]

Acting Chief Justice: A. Sambasiva Rao
Judges: C. Kondaiah, Alladi Kuppuswami, O. Chinnappa Reddy, K. Madhava Reddy, K. Ramachandra Rao, M. Ramachandra Raju, P. Sriramulu, T. Lakshmaiah, A.V. Krishna Rao, K.A. Muktadar, G. Venkatarama Sastry, P. Chennakesav Reddy, V. Madhava Rao, S. M. Rao, K. Punnayya and A. Raghuvir.

Public Service Commission[2]

Chairman: S.A. Quader
Members: J. Veeraswami, Y. Sivasankara Reddi, T.V. Narayana and K. Keshav Rao.

Chief Secretary: N. Bhagwan Das

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Adilabad	16,133	12,88,348	Adilabad
2.	Anantapur	19,125	21,15,321	Anantapur
3.	Chittoor	15,763	22,85,536	Chittoor
4.	Cuddapah	15,356	15,77,267	Cuddapah
5.	East Godavari	10,970	30,87,262	Kakinada
6.	Guntur	11,377	28,44,488	Guntur
7.	Hyderabad	7,707	27,91,762	Hyderabad
8.	Karimnagar	11,824	19,63,928	Karimnagar
9.	Khammam	15,872	13,69,892	Khammam
10.	Krishna	8,734	24,93,574	Bandar/Masulipatnam
11.	Kurnool	18,799	19,82,090	Kurnool
12.	Mahbubnagar	18,419	19,32,082	Mahbubnagar
13.	Medak	9,685	14,67,944	Sangareddi
14.	Nalgonda	14,242	18,19,738	Nalgonda
15.	Nellore	13,058	16,09,617	Nellore
16.	Nizamabad	7,969	13,13,268	Nizamabad
17.	Ongole[3]	17,620	19,19,995	Ongole
18.	Srikakulam	9,743	25,89,991	Srikakulam
19.	Visakhapatnam	13,799	28,05,366	Visakhapatnam
20.	Warangal	12,875	18,70,933	Warangal
21.	West Godavari	7,744	23,74,306	Eluru

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[1] As on 17 March 1975.

[2] As on 9 May 1974.

[3] The name of Ongole district has been changed to Prakasam district.

ASSAM

Area: 78,523 sq. km
Capital: Dispur
Population: 1,46,25,152
Principal languages: Assamese and Bengali

AGRICULTURE

The area under food crops accounts for over 70 per cent of the total cultivated area. The principal food crop is rice while the main cash crops are jute, tea, cotton, oilseeds, sugarcane, potato and fruits. Cultivation of wheat was virtually non-existent a decade ago. In recent years, wheat production has steadily increased; in 1973-74, is was 70,000 tonnes. Total production of some of the crops during 1973-74 was: foodgrains 22.57 lakh tonnes, oilseeds 72,000 tonnes, sugarcane (gur) 1.29 lakh tonnes and jute 11.17 lakh bales.

Forests cover about 21.7 per cent of the total area of the state. The main forest products are timber, bamboo, reeds, medicinal herbs, lac, cane and elephant tusks.

INDUSTRY

Assam is rich in mineral wealth. It holds a unique position in the production of mineral oil. Other minerals found in the state are coal, limestone, refractory clay, dolomite, corundum and natural gas.

Of the agriculture-based industries, tea occupies an important place. There are over 750 tea plantations in the state. Petroleum and petroleum products form the other main industries. The state has two oil refineries and the third, with a petro-chemical complex, is under way. There is also a public sector fertilizer factory at Namrup. Other industries are sugar, jute, silk, paper, plywood manufacture and rice and oil milling. Important cottage industries are: handloom, sericulture, manufacture of cane and bamboo articles, carpentry, smithy and manufacture of brass utensils.

IRRIGATION AND POWER

The two medium irrigation schemes started in the state during the Third Five Year Plan and which spilled over to the Fourth Plan were the Yamuna and Sukla irrigation projects. The Yamuna project was commissioned in 1969.

Assam had only 20 electrified villages in 1951; the number increased to 1,241 by 1973. The installed capacity in 1973-74 was121 mw.

GOVERNMENT

Governor: L.P. Singh

Council of Ministers[1]

Chief Minister: Sarat Chandra Sinha
Cabinet Ministers: Syed Ahmed Ali, Parmanand Gogoi, Gajen Tanti, Mohammad Idris, Mahitosh Purkayastha, Lutfur Rahman, Upendra Das, Uttam Chandra Brahma, Harendra Nath Talukdar, Chatrasing Teron, Mohammed Umaruddin, S.C. Dalagappu, Lakhyanath Doley, Indreshwar Khound, Girin Chowdhury and Hiteshwar Saikia.
Ministers of State: Bishnu Prasad, Smt Swarna Prabha Mahanta, Suren Das, Smt Saeda Anwara Taimur, Surnjan Nandy, Devendranath Bora, Bijoy Sharma and Dhumindar Barman.
Deputy Minister : Lilakanta Das

Legislative Assembly[1]

Speaker: R.C. Barua
Deputy Speaker: Golak Chand Rajbongshi

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[1] As on 13 October 1974.

High Court[1]

Chief Justice: M.C. Pathak
Judges: D.M. Sen, B.N. Sarma, Baharul-Islam and D. Pathak.

Public Service Commission[2]

Chairman: R.M. Das
Members: R.K. Bhuyan and N. Islam.

Chief Secretary: D. Das

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[3]

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Cachar	6,962	17,13,318	Silchar
2.	Darrang	8,775	17,36,188	Tezpur
3.	Goalpara	10,359	22,25,103	Dhubri
4.	Kamrup	9,863	28,54,183	Gauhati
5.	Lakhimpur	12,792	21,22,719	Dibrugarh
6.	Mikir Hills	10,332	3,79,310	Diphu
7.	North Cachar Hills	4,890	76,047	Haflong
8.	Nowgong	5,561	16,80,895	Nowgong
9.	Sibsagar	8,989	18,37,389	Jorhat

BIHAR

Area: 1,73,876 sq. km
Capital: Patna
Population: 5,63,53,369
Principal language: Hindi

AGRICULTURE

Irrigated area forms about 26 per cent of the cultivable area of the state. The principal food crops are rice, wheat, maize, ragi and pulses. Main cash crops are sugarcane, oilseeds, tobacco and jute. The production of foodgrains was 83.41 lakh tonnes in 1972-73 as against 90.04 lakh tonnes in 1971-72.

Forests cover about 17 per cent of the area. Important forest products are timber, *kendu* leaves, lac, gum and resin.

INDUSTRY

Bihar is one of the richest states in India in mineral wealth, accounting for about 40 per cent of the total mineral production in the country. It has huge deposits of copper, apatite and kyanite, and sizeable deposits of coal, mica and china clay. It is also one of the principal iron ore producing states. Other important minerals found are manganese, limestone, graphite, chromite, asbestos, barytes, dolomite, felspar, columbite, saltpetre, glass sands, slate, lead, silver, building stones and radio-active minerals.

The Tata Iron and Steel Company and the Tata Engineering and Locomotive Company at Jamshedpur, the fertilizer factory at Sindri, the Heavy Machine Tool Factory and Foundry Forge project at Ranchi, the steel plant at Bokaro, the oil refinery at Barauni, the aluminium plant at Muri (Ranchi), explosives factory at Gomia and paper factory at Dalmianagar are some of the major industrial ventures in the state. There are 28 sugar factories, seven cement factories, seven distilleries, three jute mills and one wagon-making unit.

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[1] As on 17 March 1975. The entire North-Eastern region comprising Assam, Meghalaya, Manipur, Nagaland, Tripura, Arunachal Pradesh and Mizoram is under the jurisdiction of the Gauhati High Court.

[2] An on 31 July 1974.

[3] As on 1 July 1971. Subsequently, in 1973 a new district of Dibrugarh, with Dibrugarh as its headquarters, was formed. As a result, North Lakhimpur and not Dibrugarh is now the headquarters of Lakhimpur district.

Bihar is famous for its tussore silk industry. A spun silk mill in the public sector has been set up at Bhagalpur. Handicrafts occupy an important place among the cottage industries of Bihar.

IRRIGATION AND POWER

Major irrigation projects are on rivers Kosi, Gandak, Badua, Chandan, North Koel and Bagmati. There are a number of small and medium irrigation projects to benefit tribal areas. Several flood control schemes are in various stages of completion. The state shares the benefits of the multi-purpose Damodar Valley project with West Bengal in respect of power.

Major power projects are the Patratu thermal power station and Subarnarekha hydro electric-*cum*-irrigation project, Barauni thermal power station under Bihar State Electricity Board and Bokaro and Chandrapur thermal power stations and Tilaiya, Maithon and Panchet hydel power stations under the Damodar Valley Corporation.

The total installed capacity of power, both hydel and thermal, in March 1974 was 1,314 mw. The number of electrified villages which was 4 in 1951 increased to 9,687 by March 1974. For irrigation, 96,917 pumpsets/tube-wells had been energised by March 1974 as against 47 in 1951.

GOVERNMENT

Governor: R.D. Bhandare

Council of Ministers[1]

Chief Minister: Abdul Gafoor
Cabinet Ministers: Kedar Pande, Daroga Prasad Rai, Smt Ram Dulari Sinha, Chandra Sekhar Singh, Jagannath Misra, Lahton Choudhary, Narsingh Baitha, Ram Raj Prasad Singh, Sidui Hembrom, Umesh Prasad Verma, Ramasray Prasad Singh and Simon Tigga.

Legislative Council[1]

Acting Chairman: Ram Govind Singh

Legislative Assembly[1]

Speaker: Hari Nath Mishra
Deputy Speaker: Sakoor Ahmad

High Court[2]

Chief Justice: Shyam Nandan Prasad Singh
Judges: Saiyid Anwar Ahmed, K.B. Narain Singh, S.P. Singh, B.D. Singh, A.N. Mukharji, C.P. Sinha, Syed Sarwar Ali, M.M. Prasad, Jitendra Narain, S.P. Sinha, R.P. Sinha, D.P. Sinha, C. N. Tiwary, B.P. Jha, H.L. Agarwal and L.M. Sharma.
Additional Judges: S.K. Jha, N.P. Singh, Muneshwari Sahay, S.K. Choudhuri, Udoy Sinha and Syed Ali Ahmed.

Public Service Commission[1]

Chairman: Ram Autar Shukla
Members: S.C. Tubid, Atma Nand Singh, D.L. Baitha, Anwar Karim, Kumar Bimal and Kumar Kaushalendra Narayan Singh.

Chief Secretary: Saran Singh

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[1] As on 15 September 1974.

[2] As on 25 May 1974.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[1]

District	Area (sq. km)	Population (1971 census)	Headquarters
1. Bhagalpur	5,656	20,91,103	Bhagalpur
2. Champaran	9,196	35,43,103	Motihari
3. Darbhanga	8,679	52,33,904	Darbhanga
4. Dhanbad	2,994	14,66,417	Dhanbad
5. Gaya	12,344	44,57,473	Gaya
6. Hazaribagh	18,060	30,20,214	Hazaribagh
7. Monghyr	9,827	38,92,609	Monghyr
8. Muzaffarpur	7,838	48,40,681	Muzaffarpur
9. Palamau	12,677	15,04,350	Daltonganj
10. Patna	5,528	35,56,945	Patna
11. Purnea	11,013	39,41,863	Purnea
12. Ranchi	18,331	26,11,445	Ranchi
13. Saharsa	5,885	23,50,268	Saharsa
14. Santal Parganas	14,129	31,86,908	Dumka
15. Saran	6,952	42,79,253	Chapra
16. Shahabad	11,320	39,39,034	Arrah
17. Singhbhum	13,447	24,37,799	Chaibasa

GUJARAT

Area: 1,95,984 sq. km *Population:* 2,66,97,475
Capital: Gandhinagar *Principal language:* Gujarati

AGRICULTURE

Irrigated area forms 11.19 per cent of the total cultivated area of Gujarat. The main food crops are bajra, jowar, rice and wheat. Important commercial crops are cotton, tobacco and groundnut. Production of foodgrains was 34 lakh tonnes in 1973-74 as against 22.5 lakh tonnes in 1972-73. Production of sugarcane was 2.50 lakh tonnes, cotton 23 lakh bales and oil seeds 17.78 lakh tonnes in 1973-74 as against 1.80 lakh tonnes, 13.83 lakh bales and 4.21 lakh tonnes respectively in 1972-73.

Forests cover nine per cent of the area of the state. Main forest products are teak, *khair, haldarvo* and bamboo.

INDUSTRY

Textiles (including ginning and pressing of cotton), tobacco manufacture, drugs and chemicals, engineering goods, machine tools, paper, cement and sugar are some of the important industries.

The discovery of oil and natural gas in Ankleshwar, Cambay and Kalol areas has put Gujarat on the country's oil map. The capacity of the refinery at Koyali has been expanded from 20 to 43 lakh tonnes a year.

Apart from textiles, readymade garments and synthetic fabrics, the state is exporting salt, drugs and pharmaceuticals, and electrical and engineering goods.

IRRIGATION AND POWER

Important irrigation schemes implemented since 1947 include Ukai, Kadana, Kakrapara, Mahi Right Bank Canal, Shetrunji, Dantivada and Hathmati reservoir projects.

The total installed capacity, both hydel and thermal, at the end of 1972-73 was 948.23 mw. Gujarat had only 117 electrified villages in

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[1] As on 1 July 1971. Subsequently, 14 new districts of Aurangabad, Begusarai, Giridih, Gopalganj, Katihar, Madhubani, Nalanda, Nawadah, Rohtas, Samastipur, Sitamarhi, Siwan, Vaishali and West Champaran have been formed. As a result of the reorganisation of districts, Laherisarai has become the headquarters of Darbhanga district, while Biharsharif, Sasaram, Bettiah and Hajipur have become district headquarters of Nalanda, Rohtas, West Champaran and Vaishali districts respectively. District Shahabad has now been renamed Bhojpur.

1951; the number increased to 5,847 by the end of 1973-74. For irrigation, 97,915 pumpsets had been energised as against 2,460 in 1951.

GOVERNMENT

Governor: K.K. Viswanathan
The state was brought under President's rule on 9 February 1974 and the Assembly dissolved on 15 February 1974.

High Court[1]

Chief Justice: B.J. Divan
Judges: J.B. Mehta, A.D. Desai, J.M. Sheth, D.A. Desai, S.N. Patel, S.H. Seth, D.P. Desai, M.P. Thakkar, P.D. Desai, B.K. Mehta and T.U. Mehta.
Additional Judges: C.V. Rane, A.N. Surti, M.C. Tirvedi and N.H. Bhatt.

Public Service Commission[2]

Chairman: P.C. Vaidya
Member: M.R. Gehani

Chief Secretary: L.R. Dalal

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Ahmadabad	8,707	29,10,307	Ahmadabad
2.	Amreli	6,760	8,48,730	Amreli
3.	Banas Kantha	12,702	12,65,383	Palanpur
4.	Bharuch	9,045	11,09,601	Bharuch
5.	Bhavnagar	11,155	14,05,285	Bhavnagar
6.	Gandhinagar	649	2,00,642	Gandhinagar
7.	Jamnagar	14,125	11,11,343	Jamnagar
8.	Junagadh	10,607	16,56,677	Junagadh
9.	Kheda	7,194	24,51,387	Kheda
10.	Kutch	45,612	8,49,769	Kutch
11.	Mahesana	9,027	20,92,468	Mahesana
12.	Panchmahals	8,866	18,48,804	Godhra
13.	Rajkot	11,203	16,24,072	Rajkot
14.	Sabar Kantha	7,390	11,87,637	Himatnagar
15.	Surat	7,745	17,86,924	Surat
16.	Surendranagar	10,488	8,45,454	Surendranagar
17.	The Dangs	1,683	94,185	Ahwa
18.	Vadodara	7,788	19,80,065	Vadodara
19.	Valsad	5,238	14,28,742	Valsad

HARYANA

Area: 44,222 sq. km
Capital: Chandigarh
Population: 1,00,36,808
Principal language: Hindi

AGRICULTURE

Over 82 per cent of the people of Haryana are engaged in agricultural pursuits. Out of the total cultivable area of 37.38 lakh hectares in the state, 43.7 per cent is irrigated. The state is surplus in foodgrains, particularly wheat, rice, bajra, barley, gram and jowar. Other important crops are sugarcane, oilseeds and cotton. Production of foodgrains in 1972-73 was 40.74 lakh tonnes as against 45.46 lakh tonnes in 1971-72 as a result of drought conditions; production of sugarcane (gur) was 5.60 lakh tonnes in 1972-73 as against 5.14 lakh tonnes in 1971-72; production of cotton was 4.23 lakh bales in 1972-73 as against 4.39 lakh bales in 1971-72; production of oilseeds was 0.99 lakh tonnes both in 1972-73 and 1971-72.

Forests cover about 3.4 per cent of the state's area.

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[1] As on 17 March 1975.

[2] As on 25 May 1974.

INDUSTRY

Some of the minerals found in small quantities are limestone, china clay and marble. However, occurrence of graphite and quartzites has been reported at several places in the state.

The major industries are cement, sugar, paper, cotton textiles, glassware, brassware, cycles, tractors, motor cycles, time-pieces, automobile tyres and tubes, sanitaryware and canvas shoes. A factory of the central government undertaking, the Hindustan Machine Tools,which is producing tractors, is located at Pinjore near Chandigarh.

IRRIGATION AND POWER

Haryana is a beneficiary of the major irrigation projects of Punjab and Rajasthan. The only major irrigation project of the state is the Western Yamuna Canal. The total installed power capacity in 1971 was 504 mw from various hydel and thermal stations. This includes Haryana's share from Bhakra Nangal and Indraprastha station extension project which are interlinked projects. Haryana is the first state in India to achieve 100 per cent rural electrification. By March 1971, all the 6,731 villages had been electrified whereas in 1951 not a single village had electricity. For irrigation, 1,28,403 pumpsets/tube-wells had been energised by 1973-74 as against 743 in 1956.

GOVERNMENT

Governor: B.N. Chakravarty

Council of Ministers[1]

Chief Minister: Bansi Lal
Cabinet Ministers: Kanhiya Lal Poswal, Ram Saran Chand Mittal, Banarsi Dass Gupta, Bhajan Lal, Harpal Singh, Shyam Chand, Maru Singh, Chiranji Lal and Maha Singh.
Ministers of State: Smt Sharda Rani, Smt Parsanni Devi, Govardhan Das and Harmindar Singh Chatha.

Legislative Assembly[1]

Speaker: Sarup Singh
Deputy Speaker: Smt Lekhwati Jain

High Court[2]

Chief Justice: R.S. Narula
Judges: B.R. Tuli, Anand Dev Koshal, S.S. Sandhanwalia, P.C. Jain, C.G. Suri, M.S. Gujral, S.C. Mital, D.S. Tewatia, B.S. Dhillon, P.S. Pattar, M.L. Verma, Gurnam Singh and Mela Ram Sharma.
Additional Judge: Rajindra Nath Mittal

Public Service Commission[1]

Chairman: M.L. Batra
Members: Harphul Singh and Braham Parkash Gupta.

Chief Secretary: S.D. Bhambri

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[3]

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Ambala	3,833	10,98,405	Ambala
2. Gurgaon	6,146	17,07,369	Gurgaon
3. Hisar	13,982	21,32,948	Hisar
4. Jind	2,691	6,39,610	Jind
5. Karnal	8,068	19,81,303	Karnal
6. Mahendragarh	3,459	6,91,639	Narnaul
7. Rohtak	6,043	17,85,534	Rohtak

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[1] As on 7 June 1974.
[2] As on 25 May 1974. Haryana and Punjab have a common High Court.
[3] As on 1 July 1971. Subsequently, three new districts of Bhiwani, Sonepat and Kurukshetra have been formed.

HIMACHAL PRADESH

Area: 55,673 sq. km
Capital: Simla
Population: 34,60,434
Principal languages: Hindi and Pahari

AGRICULTURE

Agriculture and horticulture are the mainstay of Himachal Pradesh's economy as 76 per cent of its people are engaged in these pursuits. Irrigated area forms only about 16.6 per cent of the net area sown. However, the agro-climatic conditions in the state are most suitable for growing a wide variety of fruits and cash crops like potato, ginger and vegetable seeds. Wheat, maize and rice are the major foodcrops. The production of foodgrains during 1972-73 was 9.1 lakh tonnes as against 9.4 lakh tonnes during 1971-72. The production of disease-free seed potato was 72,182 tonnes during 1972-73 as compared to 49,526 tonnes during 1971-72.

Besides apples, excellent variety of plums, peaches and apricots are also grown. The total fruit production during 1973-74 was about 2.4 lakh tonnes. In 1972-73, it was only 52,200 tonnes due to failure of crops.

Forests occupy 38.3 per cent of the area of the state. About one-fourth of the total revenue is earned from this source. The main forest products include timber, fuel wood, gums and resin.

INDUSTRY

Important minerals of Himachal Pradesh are rock salt, slate, gypsum, limestone and barytes.

Though Himachal Pradesh is endowed with vast natural resources, cheap power and labour, a big hurdle in the way of industrialisation is that most of the area is not easily accessible. Among major industries are Nahan Foundry, rosin and turpentine factories at Nahan and Bilaspur in the public sector and the Mohan Meakin Breweries at Solan in the private sector. A fertilizer plant is being set up at Nalagarh. A cement factory has been set up at Rajban in Sirmur district, while another is being set up at Dharmkot in Kangra district. In the small-scale sector, microscopes, electric motors, watch parts, clinical and industrial thermometers, mono block pumps, and hospital and heating equipments are being manufactured. Three re-rolling mills in Solan district have gone into production and another in Kangra district is being set up. A chemical unit, set up in the private sector in Sirmaur district, has gone into production.

Among the indigenous village industries are sheep rearing, wood carving and blacksmithy.

IRRIGATION AND POWER

There are no major irrigation projects in the state. Among important power projects at present in hand are (i) Giri project in Sirmaur district, (ii) Rukti micro hydel scheme in Kinnaur district, (iii) Sissu micro hydel scheme in Lahaul and Spiti district, (iv) Baggi augmentation project in Mandi district, and (v) Bhaba hydel project in Kinnaur district.

The production of electricity increased from 48 lakh kwh in 1968-69 to 1,626 lakh kwh in 1972-73. By the end of 1972-73, the total number of towns and villages electrified was 3,457.

GOVERNMENT

Governor: S. Chakravarti

Council of Ministers[1]

Chief Minister: Y.S. Parmar
Cabinet Ministers: Ram Lal, Des Raj Mahajan and Lal Chand Prarthi.
Ministers of State: Hardyal, Mansa Ram and Smt Sarla Sharma.

Legislative Assembly[1]

Speaker: Kultar Chand Rana
Deputy Speaker: Lekh Ram

High Court[2]

Chief Justice: R.S. Pathak
Judges: D.B. Lal and Chet Ram.

Public Service Commission[1]

Chairman: K.S. Katoch
Member: Krishan Swaroop

Chief Secretary: U.N. Sharma

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[3]

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Bilaspur	1,167	1,94,786	Bilaspur
2.	Chamba	8,195	2,55,233	Chamba
3.	Kangra	8,397	13,27,211	Dharmsala
4.	Kinnaur	6,553	49,835	Kalpa
5.	Kulu	5,435	1,92,371	Kulu
6.	Lahaul and Spiti	12,015	23,538	Keylong
7.	Mahasu	5,652	4,40,118	Kasumpti
8.	Mandi	4,018	5,15,180	Mandi
9.	Simla	1,416	2,17,129	Simla
10.	Sirmaur	2,825	2,45,033	Nahan

JAMMU AND KASHMIR

Area: 2,22,236 sq. km[4]
Capital: Srinagar (summer)
Jammu (winter)

Population: 46,16,632[5]
Principal languages : Kashmiri, Dogri, Urdu, Ladakhi, Balti, Dardi and Pahari

AGRICULTURE

The economy of Jammu and Kashmir is largely agrarian. More than 80 per cent of the population depends on agriculture for its livelihood. The total area under cultivation is 8.67 lakh hectares of which 3.23 lakh hectares are irrigated. Main crops are rice, maize, wheat and barley. Production of foodgrains in 1973-74 was 10.13 lakh tonnes as against 9.2 lakh tonnes in 1972-73. The area under high yielding varieties increased from 2.57 lakh hectares in 1972-73 to 3.00 lakh hectares in 1973-74. Horticulture has made considerable progress in recent years; the area under it in 1973-74 was 61,000 hectares as against 57,000 in 1972-73. Production of fruits was 2.16 lakh tonnes in 1973-74 as against 1.83 lakh tonnes in 1972-73. Export of fruits was 1.86 lakh tonnes in 1973-74 as against 1.55 lakh tonnes in 1972-73.

INDUSTRY

Sericulture is a major industry. Production of raw silk increased from 19.22 lakh kg in 1972-73 to 22.39 lakh kg in 1973-74. Among the industries which have come up in the state are the HMT watch factory and an ancillary unit of the Indian Telephone Industries, both at Srinagar.

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[1] As on 12 June 1974.
[2] As on 25 May 1974.
[3] As on 1 July 1971. Subsequently, three new districts of Solan, Una and Hamirpur have been formed. Mahasu has become defunct.
[4] Includes area under the illegal occupation of Pakistan and China.
[5] Excludes population of area under the illegal occupation of Pakistan and China.

Main cottage industries are carpet and shawl making, engraved carpentry and handicrafts. Over 60,000 persons are engaged in traditional handicrafts.

IRRIGATION AND POWER

Major irrigation schemes already completed are Kathua canal and Pratap canal which irrigate an area of 17,140 hectares. The Tawi lift irrigation scheme, which was completed in 1973-74, will irrigate 13,480 hectares.

Important power schemes implemented since 1947 are the Ganderbal (15 mw), Chenani (15 mw) and Kalakot (22.5 mw). The power projects under implementation include Upper Sind project and Lower Jhelum hydel project. Besides, work on Salal hydro-electric project, which has been taken over by the central government, is also in progress.

The total installed capacity in 1973-74 was 83 mw as against 38 mw by the end of 1965-66 and a mere 4 mw two decades ago. With the commissioning of the high voltage transmission lines between Srinagar and Pathankot in 1974, the power supply system in the Valley is linked with that of northern India.

The number of villages electrified by the end of 1973-74 was 1,412 as compared to nil in 1951.

GOVERNMENT *Governor:* L.K. Jha

Council of Ministers[1]

Chief Minister: Sheikh Abdullah
Cabinet Ministers: Mirza Mohammed Afzal Beg, Devi Das Thakur and Sonam Norbu.

Legislative Council[2] *Chairman:* Syed Hussain

Legislative Assembly[2]

Speaker: Abdul Gani Goni
Deputy Speaker: Beli Ram

High Court[1]

Chief Justice: Syed Murtaza Fazal Ali
Judges: Jaswant Singh, Mian Jalal-ud-Din and M. Baha-ud-Din Farouqui.

Public Service Commission[2]

Chairman: Amar Singh
Members: Dwarka Nath, A. S. Dar, Mohammad Amin and A.A. Aftab.

Chief Secretary: S. Banerji

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Anantnag (Kashmir South)	5,382	8,32,280	Anantnag
2.	Baramula (Kashmir North)	7,458	7,75,724	Baramula
3.	Doda	11,691	3,42,220	Doda
4.	Jammu	3,165	7,31,743	Jammu
5.	Kathua	2,651	2,74,671	Kathua
6.	Ladakh	95,876[3]	1,05,291	Leh
7.	Punch	1,658	1,70,787	Punch
8.	Rajauri	2,681	2,17,373	Rajauri
9.	Srinagar	3,013	8,27,697	Srinagar
10.	Udhampur	4,549	3,38,846	Udhampur

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[1] As on 26 February 1975.

[2] As on 18 May 1974.

[3] Includes area under the illegal occupation of China.

KARNATAKA

Area: 1,91,773 sq. km
Capital: Bangalore
Population: 2,92,99,014
Principal language: Kannada

AGRICULTURE

Karnataka is predominantly agricultural. Of the total cultivated area of 102 lakh hectares, 16 per cent is irrigated. Major food crops are rice, jowar, wheat, millets and pulses. The main cash crops are sugarcane, cotton, oilseeds, tobacco, coconut, coffee, cashew, cardamom, pepper, oranges and grapes. Production of foodgrains during 1973-74 was 61 lakh tonnes, sugarcane 80.95 lakh tonnes, oilseeds 9.50 lakh tonnes, cotton 7.50 lakh bales and tobacco 25,000 tonnes.

Forests cover 16 per cent of the area of the state. High quality timber, sandalwood, eucalyptus and bamboo are the major forest products. Other forest products are high quality rosewood, soft-wood suitable for industrial purposes, and other valuable timbers.

INDUSTRY

The state is rich in mineral resources. Important among them are high grade iron ore, manganese, chromite and china clay. Karnataka is the only state where gold mining is carried on. There are a number of big industries. Machine tools, aircraft, electronic products and telecommunication equipment are some of the items produced. Important Government of India undertakings engaged in the production of these items are HAL, HMT, BEL, and ITI. The State-owned Mysore Iron & Steel Ltd. produces special steel and alloy steel with a rated capacity of 77,000 tonnes annually. Other flourishing industries are textiles, sugar, soap, chemical and pharmaceutical goods, cement, glass, ceramics and porcelain.

Karnataka accounts for 80 per cent of the mulberry silk produced in the country. Apart from silk, its sandal soap and sandal oil are well known in world markets.

IRRIGATION AND POWER

Karnataka has two large river basins, those of Krishna and Cauvery, besides a number of other rivers used both for irrigation and power generation. The important irrigation schemes are Tungabhadra, Ghataprabha, Malaprabha, Upper Krishna, Bhadra, Harangi, Kabini and Hemavathi.

The major power projects are Sharavati hydro-electric project, Shivasamudram hydro-electric project and the power project on Kali river now under construction. The installed power capacity was 947 mw in 1973. The number of electrified villages stood at 17,500 at the end of March 1974 as compared to 551 in 1951. For irrigation, 1,80,000 tube-wells had been energised by 31 March 1974.

GOVERNMENT

Governor: Mohan Lal Sukhadia

Council of Ministers[1]

Chief Minister: D. Devaraj Urs
Cabinet Ministers: M. Mallikarjunaswamy, N. Hutchmasthy Gowda, H.M. Channabasappa, H. Siddaveerappa, Mohammed Ali, M. M.Y. Ghorpade, S.M. Krishna, D.K. Naikar, K.H. Ranganath, N. Chikke Gowda, N. Rachaiah, S.M. Yahya, C.N. Patil and Smt Eva Vaz.
Ministers of State: K.T. Rathod, S.B. Nagaral, V.S. Kaujalgi, Devendrappa Ghalappa, R.D. Kittur, Subhash Asture, K. Sriramulu, R. Gundu Rao, Veerappa Moily, Smt Manorama Madhwaraj. Subbiah Shetty and H.C. Srikantiah.

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[1] As on 21 February 1975.

Legislative Council[1] *Chairman:* M.V. Venkatappa
Deputy Chairman: T.N. Narasimha Murthy

Legislative Assembly[1] *Speaker:* Smt K.S. Nagarathnamma
Deputy Speaker: B.P. Kadam

High Court[2] *Chief Justice:* G.K. Govinda Bhat
Judges: D.M. Chandrashekhar, Closepet Honniah, Koratagere Bhimiah, Byanna Venkataswami, M. Sadananda Swamy, D. Noronha, V.S. Malimath, S.R. Range Gowda, E.S. Venkataramaiah, K. Jagannatha Shetty, M.S. Nesargi and M.K. Srinivasa Iyengar.

Public Service Commission[1] *Chairman:* G. Duggappa
Members: T. Reuben Mallaraj Urs, H. Maharudriah, B. T. Sasnur, M.S. Swaminathan and Bhairappa.

Chief Secretary: G.V.K. Rao

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Bangalore	8,003	33,65,515	Bangalore
2.	Belgaum	13,410	24,23,342	Belgaum
3.	Bellary	9,898	11,22,686	Bellary
4.	Bidar	5,451	8,24,059	Bidar
5.	Bijapur	17,056	19,85,591	Bijapur
6.	Chikmagalur	7,199	7,36,647	Chikmagalur
7.	Chitradurga	10,852	13,97,456	Chitradurga
8.	Coorg	4,104	3,78,291	Mercara
9.	Dharwar	13,749	23,42,213	Dharwar
10.	Gulbarga	16,224	17,39,220	Gulbarga
11.	Hassan	6,823	11,02,370	Hassan
12.	Kolar	8,223	15,16,646	Kolar
13.	Mandya	4,958	11,54,374	Mandya
14.	Mysore	11,947	20,77,238	Mysore
15.	North Kanara	10,276	8,49,105	Karwar
16.	Raichur	14,005	14,15,740	Raichur
17.	Shimoga	10,548	13,01,485	Shimoga
18.	South Kanara	8,441	19,39,315	Mangalore
19.	Tumkur	10,606	16,27,721	Tumkur

KERALA

Area: 38,864 sq. km *Population:* 2,13,47,375
Capital: Trivandrum *Principal language:* Malayalam

AGRICULTURE Irrigated area forms 20.2 per cent of the total cultivated area in Kerala. The state has abundance of cash crops. Cashew-nut, areca-nut, coconut, cotton, oilseeds, pepper, sugarcane, rubber, coffee, tea and cardamom are grown extensively. Rice and tapioca are important food crops grown, though pulses are also grown in some areas. Production of rice increased from 13.5 lakh tonnes in 1971-72 to 13.76 lakh tonnes in 1972-73.

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[1] As on 21 February 1975.

[2] As on 17 March 1975.

Forests occupy 24 per cent of the area of the state. The forest wealth consists of some well-known varieties of timber, such as, teak, blackwood, ebony, softwood and rosewood which are in great demand abroad and fetch a high price.

INDUSTRY

Important minerals found in the state are ilmenite, rutile, monazite, zircon, sillimanite and clays, quartz sand and lime shell.

Important industries are rubber, tea, ceramics, electrical appliances, telephone cables, transformers, bricks and tiles, drugs and chemicals, soaps, oils and fertilizers.

In recent years, a number of manufacturing units have sprung up for producing precision instruments, machine tools, petroleum and petroleum products, fertilizers and allied products, paints, aluminium, rubber, rayon, pulp, paper, plywood, and non-ferrous metals.

Principal export products are cashew-nut, tea, pepper and other spices, lemon grass oil, seafoods, particularly shrimps, rosewood, coir and coir products and rubber products.

IRRIGATION AND POWER

Major irrigation projects implemented since 1947 are Periyar Valley, Neyyar, Meenkara, Kanhirapuzha, Kuttiadi, Malampuzha and Peechi. Important power projects are Panniar, Sholayar, Sabarigiri, Sengulam, Poringalkuth, Neriamangalam and Idikki.

Heavy rainfall and a large number of swift flowing rivers and streams provide considerable potential for power generation. The total installed capacity in March 1973 was 621.5 mw from various hydel stations. There were only 159 electrified villages in 1951; the number increased to 1,338 in 1973. For irrigation, 33,270 pumpsets/tube-wells had been energised by 31 March 1973 as compared to 2,666 in 1961.

GOVERNMENT

Governor: N.N. Wanchoo

Council of Ministers[1]

Chief Minister: C. Achutha Menon

Cabinet Ministers: K. Karunakaran, K.G. Adiyodi, K. Avukaderkutty Naha, Baby John, N.K. Balakrishnan, T.K. Divakaran, Vella Eacharan, M.N. Govindan Nair, Chakkeri Ahmed Kutty, Paul P. Mani, Vaikom Purushothaman and T.V. Thomas.

Legislative Assembly[1]

Speaker: K. Moideenkutty Haji

Deputy Speaker: R.S. Unni

High Court[2]

Chief Justice: P. Govindan Nair

Judges: V.P. Gopalan Nambyar, M.U. Issac, V.B. Eradi, P. Narayana Pillai, P.S. Poti, E.K. Moidu, N.D.P. Namboodiripad, G. Vishwanatha Iyer, V. Khalid, K. Bhaskaran and George Abraham Vadakkel.

Additional Judges: T.C. Menon, Kumari P. Janaki Amma, K.K. Narendran, G. B. Nair and S.K. Kader.

Public Service Commission[1]

Chairman: M.K. Kumaran

Members: V. Sreedharan Nair, T.M. Savankutty, K.U. Kunhikrishna Poduval, T.P. Joseph, N. Kochukrishnan and K.A. Narayanan.

Chief Secretary: K.P.K. Menon

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[1] As on 24 May 1974.

[2] As on 25 May 1974.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[1]

District	Area (sq. km)	Population (1971 census)	Headquarters
1. Alleppey	1,884	21,25,722	Alleppey
2. Cannanore	5,706	23,65,164	Cannanore
3. Ernakulam	3,271	23,83,178	Ernakulam
4. Kottayam	6,389	20,85,134	Kottayam
5. Kozhikode	3,729	21,06,249	Calicut
6. Malappuram	3,638	18,56,362	Malappuram
7. Palghat	4,400	16,85,342	Palghat
8. Quilon	4,623	24,12,821	Quilon
9. Trichur	3,032	21,28,797	Trichur
10. Trivandrum	2,192	21,98,606	Trivandrum

MADHYA PRADESH

Area: 4,42,841 sq. km	*Population:* 4,16,54,119
Capital: Bhopal	*Principal language:* Hindi

AGRICULTURE

The economy of Madhya Pradesh is agriculture-based. Nearly 84 per cent of the population lives in villages but only about 37.3 per cent of them are economically active. Most of the agricultural area is rain-fed, the irrigated area being only 10 per cent of the total cultivated area. The cultivated area is over 35 per cent. The state is surplus in foodgrains and commercial crops. The main food crops are jowar, wheat, rice and gram. Important among the commercial crops are oilseeds, cotton and sugarcane. The production of foodgrains went up to 113 lakh tonnes in 1971-72 as compared to 108 lakh tonnes in 1970-71 and 47 lakh tonnes in 1951. The production of sugarcane and oilseeds was 1.61 and 5.90 lakh tonnes respectively during 1971-72. During the same period, the production of cotton was 5.50 lakh bales.

Forests cover nearly 30 per cent of the total area of the state.

INDUSTRY

The south-eastern and eastern areas of the state are rich in minerals. Coal, iron ore, limestone, dolomite, bauxite, diamond and manganese ore are the principal deposits.

The major industries established in various parts of the state are the steel plant at Bhilai and the Bharat Heavy Electricals at Bhopal. There are 19 textile mills in the state. The country's only newsprint mill is located at Nepanagar in the state. At present, it produces over 40,000 tonnes of newsprint annually. Other industries include potteries, cement, biscuit manufacturing, engineering tools, rayon and art silk. Thirty-six out of forty-five districts in the state are categorised as industrially backward districts.

IRRIGATION AND POWER

Important irrigation projects of Madhya Pradesh are Chambal, Tawa, Hasdeo, Mahanadi and Barna. Twenty-nine medium irrigation projects were completed during the first three five year plans bringing nearly 7,28,460 hectares of additional area under irrigation. During 1972-73, two medium projects—Bila in Sagar and Chhapi in Raigarh—were completed while another project, Chandrakeshwar in Dewas, was partially completed creating an additional irrigation potential of

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[1] As on 1 July 1971. Subsequently, a new district of Idikki has been formed with Kottayam as temporary headquarters. Permanent headquarters would be Idikki.

22,663 hectares. Madhya Pradesh has good potential of hydro-electric power generation. The total installed capacity of power, both hydel and thermal, by the end of 1973-74 was estimated to be 757.5 mw. Madhya Pradesh had only nine electrified villages in 1951 and the number increased to 10,800 by the end of 1973-74. The total number of irrigation pumps energised was 1.6 lakhs up to March 1974 as compared to only 30 in 1956.

GOVERNMENT *Governor:* Satyanarayan Sinha

Council of Ministers[1]

Chief Minister: P.C. Sethi
Cabinet Ministers: S.S.N. Mushran, Mathura Prasad Dubey, G.R. Anant, V.R. Uike, K.L. Shukla, Arjun Singh, K.P. Singh, B.D. Mahant, Tejlal Tembhre and Gulab Chand Tamot.
Ministers of State: Surti Kistarya, Umrao Singh, Smt Devendra Kumari, Aziz Qureshi, Zumaklal Bhedia, Vimla Verma and Ran Vijaya Pratap Singh.
Deputy Ministers: Chandra Prabhash Shekhar, Durga Das Suryavanshi, Shobharam Patel, B.S. Porte and Kum Kamla Devi.

Legislative Assembly[2]

Speaker: S. Gulsher Ahmed
Deputy Speaker: N.P. Shukla

High Court[3]

Chief Justice: P.K. Tare
Judges: S.P. Shrivastava, R.J. Bhave, A.P. Sen, G.P. Singh, S.M.N. Raina, G.J. Oza, S.R. Vyas, K.K. Dube, N.C. Dwivedi, R.K. Tankha, J.S. Verma, G.G. Sohani and M.L. Malik.
Additional Judges: R.L. Murab, B.R. Dube, U.N. Bachawat and C.P. Sen.

Public Service Commission[2]

Chairman: K.C. Tiwari
Members: D.D. Kurre, M.A. Khan, S.H. Aole and R.K. Singh.

Chief Secretary: M.S. Chaudhary.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[4]

District 1	*Area (sq. km)* 2	*Population (1971 census)* 3	*Headquarters* 4
1. Balaghat	9,245	9,77,583	Balaghat
2. Bastar	39,060	15,15,956	Jagdalpur
3. Betul	10,061	7,36,196	Betul
4. Bhind	4,467	7,93,955	Bhind
5. Bilaspur	19,905	24,40,962	Bilaspur
6. Chhatarpur	8,690	7,12,385	Chhatarpur
7. Chhindwara	11,824	9,89,413	Chhindwara
8. Damoh	7,301	5,73,263	Damoh
9. Datia	2,034	2,55,267	Datia
10. Dewas	7,014	5,94,336	Dewas
11. Dhar	8,149	8,42,400	Dhar
12. Durg	19,670	24,61,901	Durg
13. East Nimar	10,705	8,79,331	Khandwa
14. Guna	11,017	7,83,748	Guna

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[1] As on 5 February 1975. [2] As on 14 July 1974. [3] As on 25 May 1974.
[4] As on 1 July 1971. Subsequently, two new districts, *i.e.*, Bhopal and Rajnandgaon, have been formed.

1		2	3	4
15.	Gwalior	5,213	8,58,005	Gwalior
16.	Hoshangabad	10,016	8,05,870	Hoshangabad
17.	Indore	3,910	10,25,150	Indore
18.	Jabalpur	10,164	16,86,030	Jabalpur
19.	Jhabua	6,781	6,67,811	Jhabua
20.	Mandsaur	9,726	9,61,522	Mandsaur
21.	Mandla	13,257	8,73,577	Mandla
22.	Morena	11,586	9,85,338	Morena
23.	Narsimhapur	5,138	5,19,270	Narsimhapur
24.	Panna	7,122	4,29,077	Panna
25.	Raigarh	12,910	12,78,705	Raigarh
26.	Raipur	21,251	26,13,531	Raipur
27.	Raisen	8,395	5,53,026	Raisen
28.	Rajgarh	6,163	6,44,346	Rajgarh
29.	Ratlam	4,859	6,26,534	Ratlam
30.	Rewa	6,315	9,77,894	Rewa
31.	Sagar	10,246	10,62,291	Sagar
32.	Satna	7,495	9,13,531	Satna
33.	Sehore	9,015	10,84,933	Sehore
34.	Seoni	8,752	6,68,352	Seoni
35.	Shahdol	14,028	10,29,839	Shahdol
36.	Shajapur	6,201	6,78,359	Shajapur
37.	Shivpuri	10,285	6,76,567	Shivpuri
38.	Sidhi	10,532	7,76,786	Sidhi
39.	Surguja	22,337	13,26,439	Ambikapur
40.	Tikamgarh	5,047	5,68,885	Tikamgarh
41.	Ujjain	6,081	8,62,516	Ujjain
42.	Vidisha	7,433	6,58,427	Vidisha
43.	West Nimar	13,441	12,84,812	Khargone

MAHARASHTRA

Area: 3,07,762 sq. km	*Population:* 5,04,12,235
Capital: Bombay	*Principal language:* Marathi

AGRICULTURE About 70 per cent of the people in Maharashtra depend on agriculture. Irrigated area forms only about 8.6 per cent of the total cropped area. The principal food crops are wheat, rice, jowar, maize, bajra and pulses. Production of foodgrains during 1971-72, 1972-73 and 1973-74 was 49.3 lakh tonnes, 30.5 lakh tonnes and 72.4 lakh tonnes respectively. Important cash crops are cotton, oilseeds, sugarcane, groundnut and tobacco. The production during these three years was: sugarcane (gur) 13.8 lakh tonnes, 13.1 lakh tonnes and 12.1 lakh tonnes; cotton 9.2 lakh bales, 10.4 lakh bales and 8.7 lakh bales; and groundnut 4.8 lakh tonnes, 2.0 lakh tonnes and 4.9 lakh tonnes respectively.

INDUSTRY Maharashtra is endowed with sizeable deposits of iron ore, coal, manganese ore, bauxite and limestone. Manganese ore in the Vidarbha region has enabled the state to develop ferro-manganese industry. A cement factory has been set up at Chandrapur.

There are several large-scale industries including textiles, ginning and pressing, silk, rayon, synthetic fabrics and vegetable products. Most of the textile mills are located in Bombay. Maharashtra is also a major sugar-producing state. Important chemical industries include nitrogenous fertilizers, superphosphates, chemicals, drugs and pharmaceuticals and photographic chemicals.

Various types of engineering goods, such as, machine tools, steel and malleable iron castings, welding electrodes, ball-bearings and agricultural implements are manufactured for domestic consumption as well as for export. Maharashtra leads in motion picture industry which plays a vital role in the economy of the state. A number of defence and public sector industries are also located in the state.

IRRIGATION AND POWER

Important irrigation schemes implemented since 1947 are Gangapur, Ghod, Girna, Khadakvasla (Panshet), Mula, Vir, Purna, Manar, Bagh, Itiadoh, Bor, Nalganga and Katepurna projects.

The major power projects are Koyna and Purna hydro-electric projects. The total installed capacity in March 1974 was 2,133 mw. This includes the capacity of the atomic power station functioning at Tarapur since 1969. Maharashtra had only 38 electrified villages in 1951; the number increased to 17,200 by March 1974. For irrigation, 3,40,000 pumpsets/tube-wells had been energised by 31 March 1974 compared to 142 in 1951.

GOVERNMENT

Governor: Ali Yawar Jung

Council of Ministers[1]

Chief Minister: S.B. Chavan
Cabinet Ministers: Vasant Rao Patil, M.D. Chaudhari, N.M. Tidke, Rafiq Zakaria, Y.J. Mohite, A.R. Antulay, Smt Pratibha Patil, S.B. Patil, S.A. Solanke, Sharad Pawar, R.J. Deotale, Smt Prabha Rao and R.B. Kumbhar.
Ministers of State: Prabhankar Kunte, U.N. Gaikwad, R.P. Valvi, R.M. Pande, S.S. Shinde, R.V. Bhelose, K.M. Patil, J. Leon D'Souza, Nanasaheb Sakpal, B.J. Khatal and JogeshDesai.

Legislative Council[1]

Chairman: V.S. Page
Deputy Chairman: R.S. Gavai

Legislative Assembly[1]

Speaker: S.K. Wankhede
Deputy Speaker: R.V. Bet

High Court[2]

Chief Justice: R.M. Kantawala
Judges: V.D. Tulzapurkar, B.N. Deshmukh, B.D. Padhye, J.R. Vimadalal, V.S. Deshpande, N.P. Nathwani, D.P. Madon, M.N. Chandurkar, M.S. Apte, R.R. Bhole, G.N. Vaidya, N.D. Kamat, S.B. Bhasme, M.H. Kania, S.K. Desai, S.M. Hajarnavis, P.S. Malvankar, R.K. Joshi, B.A. Masodkar, C.S. Dharmadhikari, P.M. Mukhi and P.S. Shah.
Additional Judges: B.M. Sapre, N.B. Naik, D.M. Rege, J.M. Gandhi, R.L. Agarwal, B. Lentin, P.B. Sawant, A.R. Shimpi, R.P. Bhatt and U.R. Lalit.

Public Service Commission[1]

Chairman: N.N. Wankhade
Members: S.N.A. Razvi, Jasjit Singh, K.G. Deshmukh, M.G. Mane and N.V. Khursale.

Chief Secretary: D.D. Sathe

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[1] As on 22 February 1975.

[2] As on 25 May 1974.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Ahmadnagar	17,035	22,69,117	Ahmadnagar
2.	Akola	10,567	15,01,478	Akola
3.	Amravati	12,210	15,41,209	Amravati
4.	Aurangabad	16,200	19,71,006	Aurangabad
5.	Bhandara	9,214	15,85,580	Bhandara
6.	Bhir	11,227	12,86,121	Bhir
7.	Buldhana	9,745	12,62,978	Buldhana
8.	Chandrapur	25,641	16,40,137	Chandrapur
9.	Dhulia	13,143	16,62,181	Dhulia
10.	Greater Bombay	603	59,70,575	Bombay
11.	Jalgaon	11,771	21,23,121	Jalgaon
12.	Kolaba	7,198	12,63,003	Alibagh
13.	Kolhapur	8,059	20,48,049	Kolhapur
14.	Nagpur	9,928	19,42,688	Nagpur
15.	Nanded	10,492	13,97,762	Nanded
16.	Nasik	15,582	23,69,221	Nasik
17.	Osmanabad	14,117	18,96,687	Osmanabad
18.	Parbhani	12,489	15,06,771	Parbhani
19.	Poona	15,640	31,78,029	Poona
20.	Ratnagiri	13,040	19,90,583	Ratnagiri
21.	Sangli	8,563	15,39,820	Sangli
22.	Satara	10,492	17,27,376	Satara
23.	Sholapur	15,021	22,53,840	Sholapur
24.	Thana	9,553	22,81,664	Thana
25.	Wardha	6,307	7,79,562	Wardha
26.	Yeotmal	13,925	14,23,677	Yeotmal

MANIPUR

Area: 22,356 sq. km
Capital: Imphal
Population: 10,72,753
Principal language: Manipuri

AGRICULTURE

The main occupation of 66 per cent of the population of Manipur is agriculture. Nearly 92 per cent of the total land area is hilly. Forest reserves are being developed by planting better species of timber. Bamboo is found in large quantities. Main crop is paddy, while wheat and maize are also grown in some areas. Orchards are also being set up. The production of foodgrains increased from 1.75 lakh tonnes in 1972-73 to an estimated 1.98 lakh tonnes in 1973-74.

INDUSTRY

The state has no large-scale industry. Handloom weaving is the largest single cottage industry. Other cottage industries are sericulture, bamboo and cane articles, carpentry, blacksmithy, leather goods, edible oil crushing and rice milling. A khandsari sugar factory went into production in 1973.

IRRIGATION AND POWER

Irrigation is done through minor irrigation works by constructing weirs across running streams for better distribution of water during the monsoons.

The total installed capacity of power, both hydel and thermal, in 1973-74 was 7.6 mw. Manipur had only nine electrified villages before 1951; the number increased to 214 by 31 March 1974.

GOVERNMENT *Governor:* L.P. Singh
Elections to the state assembly were held in February 1974. Out of 7,16,432 voters, 85.02 per cent exercised their franchise. A ministry headed by Shri Md. Alimuddin was sworn in on 4 March 1974 but it tendered its resignation on 8 July 1974. A new ministry headed by Shri Shaiza was sworn in on 10 July; it resigned on 5 December.

Council of Ministers[1] *Chief Minister:* Rajkumar Dorendra Singh
Cabinet Ministers: Haokholal Thangjom, Rishang Keishing, Rajkumar Ranbir Singh, T.P. Kiuengpao, L. Chandramani Singh, Y. Yaima Singh and Khwairakpan Chaoba.
Ministers of State: M. Gouramani Singh, Chaboa Singh, Borthakur Sharma, T.P. Khing, Jayantha Singh, Khaiem Nemai Chand Singh, T. Jobthoi, O. Joy Singh, Mohd. Allaudin and Hokkhomang Haokip.
Deputy Ministers: W. Kamal Singh and N.R. Fankothan Asom.

Legislative Assembly[1] *Speaker:* Mohammed Alimuddin
Deputy Speaker: Pauheu

High Court The jurisdiction of Gauhati High Court extends over Manipur. For list of judges, see under Assam.

Public Service Commission[2] *Chairman:* G.B.K. Hooza
Members: L. Gopal Singh and S. Larho.

Chief Secretary: S.M. Krishnatry

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Manipur Central	5,605	7,63,260	Imphal
2.	Manipur East	4,409	62,229	Ukhrul
3.	Manipur North	3,417	1,04,175	Karong
4.	Manipur South	4,581	98,114	Churachandpur
5.	Manipur West	4,344	44,975	Tamenglong

MEGHALAYA

Area: 22,489 sq. km	*Population:* 10,11,699
Capital: Shillong	*Principal languages:* Khasi, Jaintia and Garo

AGRICULTURE Over 80 per cent of the people of Meghalaya are engaged in agricultural pursuits. Irrigated area is about 27 per cent of the cultivated area. The principal crops are potato, *tezpata*, sugarcane, oilseeds, cotton, jute, *mesta*, tobacco and areca-nut. Selected areas have been earmarked for growing high-yielding varieties of paddy, wheat and maize. In the United Khasi and Jaintia Hills, fruits and vegetables are also grown and special programmes have been undertaken to develop horticulture. The production of foodgrains increased from 1,23,700 tonnes in 1970-71 to 1,37,230 tonnes in 1971-72. The annual production of cash crops is estimated to be: jute 50,000 bales, potato 71,000 tonnes and tapioca 5,000 tonnes. Production of *mesta* during 1970-71 was 2,310 bales, while that of tobacco, areca-nut and sugarcane was 230, 3,910 and 210 tonnes respectively. The state is making good progress in horticulture. It produces about 70,000 tonnes of pineapples, 80,000 tonnes of oranges and 35,000 tonnes of bananas annually.

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[1] As on 2 January 1975.

[2] As on 14 June 1974.

Forests and forest products are the chief resources of the state. Economic plantations of industrial and commercial use are being undertaken extensively.

INDUSTRY

The mineral wealth of the united Khasi and Jaintia Hills includes coal, sillimanite, limestone, white clay and corundum. Ninety-five per cent of India's total output of sillimanite is produced in these districts. The Garo Hills district has deposits of coal, limestone, fire clay and light coloured sandstone. The estimated reserves of coal in the state are about 12,000 lakh tonnes, limestone 21,000 lakh tonnes and clay 100 lakh tonnes.

The factory at Cherrapunjee produces 250 tonnes of cement every day and its capacity is being expanded. A timber treatment plant is being set up at Darugiri in Garo Hills. Several mineral-based industries are coming up.

IRRIGATION AND POWER

Installed capacity of power in 1973 was 56 mw. The state had electrified 59 villages up to 1971. For irrigation, 100 pumpsets had been energised by 31 March 1971.

GOVERNMENT

Governor: L.P. Singh

Council of Ministers[1]

Chief Minister: Capt. W.A. Sangma
Cabinet Ministers: B.B. Lyngdoh, Stanley D.D. Nichols Roy, Edwinson Bareh, Standford K. Marak, Darwin D. Pugh, Grohon Singh Marak and P.R. Kyndiah.
Ministers of State: P.G. Marbaniang, Salseng Marak and B.B. Shallam.

Legislative Assembly[2]

Speaker: R.S. Lyngdoh
Deputy Speaker: Singja Sangma

High Court

The jurisdiction of Gauhati High Court extends over Meghalaya. For list of judges, see under Assam.

Public Service Commission[2]

Chairman: Godwin Clinton Momin
Member: Gwenton Roy Thangkhiew

Chief Secretary: N.K. Rustomji

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Garo Hills	8,084	4,06,615	Tura
2. Jaintia Hills	3,863	6,05,084	Jowai
3. Khasi Hills	10,529		
4. Shillong	13		

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[1] As on 7 February 1975.

[2] As on 1 April 1974.

NAGALAND

Area: 16,527 sq. km *Population:* 5,16,449
Capital: Kohima

AGRICULTURE Agriculture is the main occupation of 90 per cent of the population of Nagaland. Rice is the only important foodgrain grown in the state. The total production of rice was 60,820 tonnes in 1973-74 as against 90,000 tonnes in 1972-73. The total cropped area under rice in 1973-74 was 63,000 hectares.

Forests cover 17.56 per cent of the area of the state and they contribute considerably to the revenues.

INDUSTRY There is no major industry in the state. Handloom and sericulture are the important cottage industries. There are six weaving-*cum*-production centres, three cottage industries-*cum*-production centres, five sericulture farms, one handicraft training-*cum*-production centre and three small-scale industries service centres.

IRRIGATION AND POWER Minor irrigation works in the state are mostly meant to divert small hill streamlets to irrigate the valleys used for rice cultivation.

Total installed capacity of power in 1973-74 was 2.1 mw. Out of 814 villages in Nagaland, the number of electrified villages on 30 May 1974 was 145 compared to nil in 1951.

GOVERNMENT *Governor:* L.P. Singh
Elections to the State Assembly were held in February 1974. Out of 3,97,580 voters, 74.65 per cent exercised their franchise.

Council of Ministers[1]
Chief Minister: J.B. Josokie
Cabinet Ministers: T.N. Ngullie, Tokheho Sema, Chingwang Konyak, I.L. Changmak, Nyeiwang Konyak and R. Lisen.
Ministers of State: Tochi Hanso, Weprenyi Kapfo, Mohanshan Murry, Hentok Konyak, Zhetovi Sema, N. Metpong and Yeshito Chishi.
Deputy Ministers: Deblal Mech, P. Monokiu and Mongchu.

Legislative Assembly[2]
Speaker: V.K. Keditsu
Deputy Speaker: Hendok

High Court The jurisdiction of Gauhati High Court extends over Nagaland. For list of judges, see under Assam.

Public Service Commission[2]
Chairman: L.M. Bhatia
Member: L. Medom

Chief Secretary: H. Zopianga

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[3]

District	Area (sq. km)	Population (1971 census)	Headquarters
1. Kohima	7,209	1,75,204	Kohima
2. Mokokchung	3,852	1,68,242	Mokokchung
3. Tuensang	5,466	1,73,003	Tuensang

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[1] State came under President's rule on 22 March 1975.
[2] As on 4 July 1974.
[3] As on 1 July 1971. Subsequently, four new districts of Zunheboto, Wokha, Pheka and Mom have been formed.

ORISSA

Area: 1,55,782 sq. km
Capital: Bhubaneswar
Population: 2,19,44,615
Principal language: Oriya

AGRICULTURE

Over 80 per cent of the people in Orissa are dependent on agriculture. Out of the total cropped area of 69.35 lakh hectares, 13.90 lakh hectares are irrigated. Rice is the most important crop and the state contributes about one-tenth of the rice produced in India. Other important crops are pulses, oilseeds, jute, *mesta*, sugarcane, coconut and turmeric. During 1973-74, the production of foodgrains was 55 lakh tonnes; production of wheat was about 1 lakh tonnes which was a record. Production of sugarcane, oilseeds and jute was 2 lakh tonnes, 2 lakh tonnes and 5 lakh bales respectively.

Forests cover 67.46 lakh hectares which is 43 per cent of the area of the state. Main forest products are *sal*, teak, asan, *kurum*, peasal, bamboo and *kendu* leaves. Lac, tusser and medicinal plants like nux vomica and rauwolfia serpentina are available from certain forests. Seeds of *sal*, available in abundance, have recently become an economic product of the forests. *Kendu* leaf trade has been nationalised.

INDUSTRY

Orissa is a leading producer of iron ore in the country and the ore's iron content is 60 per cent and above. The Rourkela plant and the Tata Iron and Steel Co. depend upon Orissa ore. The state accounts for about 20 per cent of the country's production of manganese ore. Other minerals include limestone and dolomite, chromite, non-coking coal, bauxite, graphite, china clay, nickel ore and gallena. The total production of minerals in 1973 was about 115 lakh tonnes.

Since Independence, 38 large industries have been set up both in the public and private sectors. Most of them are mineral-based. Among them are the Rourkela steel plant, a pig iron plant at Barbil and a ferro-chrome plant at Jajpur Road, two ferro-manganese plants—one at Joda and the other at Jeypore—a ferro-silicon plant at Theruvelli and an aluminium smelter plant at Hirakud. The other mineral-based industries are three refractory plants at Belpahar, Rajgangpur and Latikata, and two cement plants, one at Bargarh and the other at Rajgangpur.

There are three large paper mills at Rayagada, Choudwar and Brajarajnagar. The Hindustan Steel Ltd. has also a fertilizer plant at Rourkela. Chemical industries include a caustic soda plant and a salt manufacturing unit at Ganjam and an industrial explosives plant at Rourkela.

Other industries of importance are two large sugar plants, one at Rayagada and the other at Aska, the latter in the co-operative sector; a glass works at Barang, a heavy machine tool plant at Kansbahal, a refrigerator manufacturing unit at Choudwar, a re-rolling mill at Hirakud and three textile mills at Choudwar, Jharsuguda and Bargarh, the last one in the co-operative sector, a phosphatic fertilizer plant at Rourkela, a *sal* seed extraction unit in Mayurbhanj district and a dichromatic plant in Cuttack district.

IRRIGATION AND POWER

Irrigation facilities in the state have expanded considerably since 1947. Water reservoirs have been constructed under the Hirakud Dam project, the Rushikulya project, the Salandi project, the Delta irrigation project and 12 medium irrigation projects which have created a total irrigation potential of 5,62,690 hectares under *kharif* and 3,08,620 hectares under *rabi* by 1973-74. Besides, a systematic programme for investigation of 87 major and medium irrigation projects has been drawn up to provide irrigation facilities to backward and drought-prone areas.

The Hirakud Dam project is a multi-purpose river valley project with the objectives of power generation (270 mw), flood control, navigation and irrigation. Balimela Dam, Machchkund and Talcher thermal stations are other important power projects.

The total installed capacity of power, both hydel and thermal, by March 1974 was 674 mw. Orisssa had 25 electrified villages in 1955-56; the number increased to 9,637 in 1973-74. For irrigation, 1,410 lift irrigation points had been energised by the end of April 1974.

GOVERNMENT

Governor: Akbar Ali Khan

Elections to the State Assembly were held in March 1974. Out of the total number of 1,18,85,254 voters, 51.26 per cent exercised their franchise. A ministry headed by Smt Nandini Satpathy was sworn in on 6 March 1974.

Council of Ministers[1]

Chief Minister: Smt Nandini Satpathy

Cabinet Ministers: Binayak Acharya, Banka Behari Das, Jadunath Das Mohapatra, Sriballav Panigrahi and Laxman Mallick.

Ministers of State: Mohan Nayak, Somnath Rath, Ramchandra Ulka, Brahmananda Biswal, Dibyalochan Sekhar Deo, Krupasindhu Bhoi, Benudhar Baliar Singh, Kahnu Charan Lenka and Bhagirathi Gamango.

Deputy Ministers: Jagannath Patnaik, Matlub Alli and Kuanria Majhi.

Legislative Assembly[1]

Speaker: Braj Mohan Mohanty

Deputy Speaker: Chintamony Jena

High Court[2]

Chief Justice: G.K. Misra

Judges: Sukanta Kishore Ray, Bala Krishna Patra, B.K. Ray, K.B. Panda, Sachchidananda Acharya and Ranganath Misra.

Additional Judge: P.K. Mohanty

Public Service Commission[1]

Chairman: A.K. Barren

Members: Saroj Kumar Patra and T. Sangana.

Chief Secretary: V.S. Mathews

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	Area (sq. km)	Population (1971 census)	Headquarters
1.	Balasore	6,394	18,30,504	Balasore
2.	Baudh-Khondmals	11,070	6,21,675	Phulbani
3.	Bolangir	8,903	12,63,657	Bolangir
4.	Cuttack	11,211	38,27,678	Cuttack
5.	Dhenkanal	10,826	12,93,914	Dhenkanal
6.	Ganjam	12,527	22,93,808	Chhatrapur
7.	Kalahandi	11,835	11,63,869	Bhawanipatna
8.	Keonjhar	8,240	9,55,514	Keonjhar
9.	Koraput	26,960	20,43,281	Koraput
10.	Mayurbhanj	10,412	14,34,200	Baripada
11.	Puri	10,159	23,40,859	Puri
12.	Sambalpur	17,570	18,44,898	Sambalpur
13.	Sundargarh	9,675	10,30,758	Sundargarh

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[1] As on 1 July 1974.

[2] As on 25 May 1974.

PUNJAB

Area: 50,362 sq. km
Population: 1,35,51,060
Capital: Chandigarh
Principal language: Punjabi

AGRICULTURE

Over 76 per cent of the total population of Punjab is engaged in agricultural pursuits. The state is surplus in foodgrains, especially wheat and rice. Other main foodgrains are maize, bajra, jowar, gram, barley and pulses. Major cash crops are oilseeds, sugarcane, tobacco, cotton and potatoes. The production of foodgrains in 1972-73 was 76.77 lakh tonnes as against 79.01 lakh tonnes in 1971-72; production of wheat was 53.61 lakh tonnes and rice 9.55 lakh tonnes in 1972-73.

Forests cover an area of 2,11,128 hectares or 4.2 per cent of the area of the state.

INDUSTRY

Punjab is the home of small-scale industries. Sericulture, footwear, machine tools, bicycle parts, sewing machines and parts, plastic goods, pipes, nuts and bolts, wood and machine screws are some of the important small-scale industries. More than 30,000 industrial units are functioning in the state. Punjab also produces 90 per cent of the country's woollen hosiery.

Some of the major industries established recently or being established through the efforts of the Punjab Industrial Development Corporation are tractors, dry cell batteries, polyester fibres, nylon, automobile tyres and tubes, synthetic detergents, scooters, breweries, fertilizers, steel billets, TV sets, electronic components and precision instruments. The Nangal fertilizer factory is a major central government undertaking in the state.

IRRIGATION AND POWER

Important irrigation works implemented since 1947 are the Bhakra Nangal Dam, Bhakra canals, Harike Barrage with a new lined canal called Sirhind Feeder and remodelling of Madhopur Headworks into a barrage. The Madhopur-Beas link was constructed to transfer the surplus waters of river Ravi to river Beas. A similar project, the Sutlej-Beas link project, is in an advanced stage of construction.

The Pong Dam on river Beas is an important hydro-electric project which is under construction. The Guru Nanak thermal power plant at Bhatinda is another important project undertaken by the state.

The total installed power capacity, both hydel and thermal, on 31 March 1974 was 576 mw. Punjab had only 369 electrified towns and villages in 1956; the number increased to over 7,000 by 31 March 1974. For irrigation, 1,28,000 pumpsets/tube-wells had been energised as compared to 3,095 in 1956.

GOVERNMENT

Governor: Mahendra Mohan Chaudhury

Council of Ministers[1]

Chief Minister: Giani Zail Singh
Cabinet Ministers: Umrao Singh, Hans Raj Sharma, Gurmail Singh, Master Gurbanta Singh and Yash Pal.
Ministers of State: Joginder Pal Pandey, Santokh Singh Randhawa, Kum Sarla Prashar, Sohan Singh Jalalusman, Dilbagh Singh Daleke, Balbir Singh, Gurbaksh Singh Sibia, Gurdarshan Singh and Smt Gurbinder Kaur Brar.

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[1] As on 24 June 1974.

Deputy Ministers: Bal Ram and Khushal Behl.
Chief Parliamentary Secretary : Gurcharan Singh Nihalsinghwala

Legislative Assembly[1]

Speaker: Kewal Krishan
Deputy Speaker: Nasib Singh Gill

High Court

Punjab and Haryana have a common High Court. For list of judges, see under Haryana.

Public Service Commission[1]

Chairman: Lal Singh
Members: Smt Krishna Azad, Shivdev Singh, Jaswant Rai Bansal and Onkar Singh Kalkat.

Chief Secretary: R.S. Talwar

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[2]

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Amritsar	5,088	18,35,500	Amritsar
2.	Bhatinda	7,022	13,18,134	Bhatinda
3.	Firozpur	10,145	19,05,833	Firozpur
4.	Gurdaspur	3,560	12,29,249	Gurdaspur
5.	Hoshiarpur	3,883	10,52,153	Hoshiarpur
6.	Jullundur	3,399	14,54,501	Jullundur
7.	Kapurthala	1,633	4,29,514	Kapurthala
8.	Ludhiana	3,857	14,19,421	Ludhiana
9.	Patiala	4,583	12,15,100	Patiala
10.	Ropar	2,085	5,45,005	Ropar
11.	Sangrur	5,107	11,46,650	Sangrur

RAJASTHAN

Area: 3,42,214 sq. km
Capital: Jaipur
Population: 2,57,65,806
Principal languages: Rajasthani and Hindi

AGRICULTURE

Gross irrigated area in Rajasthan is about 25 lakh hectares while net sown area is about 153 lakh hectares. Agricultural production is mainly dependent on rainfall. The principal crops are jowar, bajra, maize, gram, wheat, oilseeds, cotton, sugarcane and tobacco. The production of foodgrains decreased from 76.53 lakh tonnes in 1971-72 to 51.52 lakh tonnes in 1972-73. Production of sugarcane, however, went up from 12.03 lakh tonnes in 1971-72 to 13.50 lakh tonnes in 1972-73. The production of oilseeds was 3.82 lakh tonnes in 1972-73 as against 3.93 lakh tonnes in 1971-72. The production of cotton was 1.52 lakh bales in 1972-73.

Forests cover 36,164 sq. km or 10.6 per cent of the state's area.

INDUSTRY

Rajasthan accounts for the country's entire output of lead and zinc concentrates, emeralds and garnets. Similarly, 92 per cent of India's gypsum, 90 per cent of silver ore, 75 per cent of asbestos and felspar and 20 per cent of mica are mined here. It has rich salt deposits at Sambhar and other places. Copper mines are situated at Khetri and Dariba.

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[1] As on 24 June 1974.

[2] As on 1 July 1971. A new district of Faridkot was constituted in 1972.

Textiles, rugs and woollen goods, sugar, cement, glass, sodium producing plant, oxygen and acetylene producing units, manufacture of pesticides, insecticides, and dyes are some of the major industries. Other enterprises include the manufacture of caustic soda, calcium carbide, nylon and tyre cord and copper smelting. Among the important central government undertakings in the state is the Precision Instruments factory at Kota.

Important handicrafts are marble work, woollen carpets, jewellery, embroidery, articles of leather, pottery and brass embossing.

IRRIGATION AND POWER

The major irrigation schemes implemented since 1947 are the Kota Barrage and Rana Pratap Sagar (both inter-state projects in collaboration with Madhya Pradesh). The Rajasthan Canal will be the longest in the world when completed. Besides a number of small and medium irrigation schemes, the state is benefited from Gurgaon Canal, Bhakra Nangal project, Gandhi Sagar Dam and Beas project.

The major power projects are the Jawahar Sagar and Rana Pratap Sagar. The total installed capacity of power by the end of 1972-73 was 571 mw. A two-unit nuclear power station is being developed at Kota, the first unit of which has started generating power. Rajasthan had only 42 electrified villages and towns in 1951; the number increased to 6,102 in March 1974. For irrigation, 72,912 pumpsets/tube-wells had been energised by 31 March 1974 as against only 30 in 1951.

GOVERNMENT

Governor: Jogendra Singh

Council of Ministers[1]

Chief Minister: Harideo Joshi
Cabinet Ministers: Paras Ram Maderna, Chandan Mal Baid, Shiv Charan Mathur, Hiralal Devpura, Khet Singh, Mohan Chhangani and Ram Narayan Choudhary.
Ministers of State: Smt Kamla Beniwal, Jhujhar Singh, Mool Chand Meena, Farooq Hassan, Munshilal Mahavar, Gulab Singh Shaktawat and Banwari Lal.

Legislative Assembly[1]

Speaker: Ram Kishore Vyas
Deputy Speaker: Ram Singh Yadav

High Court[2]

Chief Justice: P.N. Shinghal
Judges: V.P. Tyagi, Kan Singh, Chand Mal Lodha, S. N. Modi, J.P. Jain and M.L. Joshi.
Additional Judges: Kalyan Dutta Sharma, D. P. Gupta and M. L. Shrimal.

Public Service Commission[1]

Chairman: R.S. Kapoor
Members: Dhuleswar Meena, Mohd. Yakub Khan, Dharmendranath Handa and Nathu Lal Jain.

Chief Secretary: S.L. Khurana

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[1] As on 12 July 1974.

[2] As on 17 March 1975.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq. km)	Population (1971 census)	Headquarters
1. Ajmer	8,479	11,47,729	Ajmer
2. Alwar	8,382	13,91,162	Alwar
3. Banswara	5,037	6,54,586	Banswara
4. Barmer	28,387	7,74,805	Barmer
5. Bharatpur	8,093	14,90,206	Bharatpur
6. Bhilwara	10,450	10,54,890	Bhilwara
7. Bikaner	27,231	5,73,149	Bikaner
8. Bundi	5,550	4,49,021	Bundi
9. Chittaurgarh	10,858	9,44,981	Chittaurgarh
10. Churu	16,829	8,74,439	Churu
11. Dungarpur	3,770	5,30,258	Dungarpur
12. Ganganagar	20,629	13,94,011	Ganganagar
13. Jaipur	14,000	24,82,385	Jaipur
14. Jaisalmer	38,401	1,66,761	Jaisalmer
15. Jalor	10,640	6,67,950	Jalor
16. Jhalawar	6,216	6,22,001	Jhalawar
17. Jhunjhunun	5,929	9,29,230	Jhunjhunun
18. Jodhpur	22,860	11,52,712	Jodhpur
19. Kota	12,437	11,43,870	Kota
20. Nagaur	17,718	12,62,157	Nagaur
21. Pali	12,391	9,70,002	Pali
22. Sawai Madhopur	10,593	11,93,528	Sawai Madhopur
23. Sikar	7,732	10,42,648	Sikar
24. Sirohi	5,135	4,23,815	Sirohi
25. Tonk	7,200	6,25,830	Tonk
26. Udaipur	17,267	18,03,680	Udaipur

TAMIL NADU

Area: 1,30,069 sq. km	*Population:* 4,11,99,168
Capital: Madras	*Principal language:* Tamil

AGRICULTURE

The total cultivated area is about 63.48 lakh hectares, of which the irrigated area is about 27.10 lakh hectares (41 per cent). The main food crops grown in the state are rice, maize, jowar, bajra, pulses and millets. Important commercial crops are sugarcane, oilseeds, cotton, tobacco, coffee, tea, rubber and pepper. Production of foodgrains was 72.02 lakh tonnes in 1972-73 and that of sugarcane and oilseeds 9.96 and 11.00 lakh tonnes respectively.

Forests cover an area of 20,926 sq. km. The main forest products are timber, sandalwood, softwood, bamboo and eucalyptus.

INDUSTRY

Limestone, magnesite, mica, quartz, felspar, salt, bauxite, lignite and gypsum are some of the minerals found in the state.

Cotton textiles is one of the major industries. There are nearly 210 cotton textile mills in the state and most of the spinning mills are supplying yarn to the decentralised sector, namely, the handloom industry. Other important industries are leather tanning, manufacture of textile machinery, power driven pumps, bicycles, electrical machinery, tractors, tyres and tubes, bricks and tiles and silk. The state is the second largest producer of cement.

A number of public sector undertakings are located in Tamil Nadu. Important among them are the Neyveli Lignite complex, the Integral Coach Factory, the High Pressure Boiler plant the Hindustan Photo Films factory, the Surgical Instruments factory, the Hindustan Teleprinters, the Madras Refineries, the Madras Fertilizers as also some defence units including the Heavy Vehicles factory. The Salem steel plant which is being set up as a subsidiary of SAIL will, when commissioned, produce 1.95 lakh tonnes of steel and strip products.

The state is an important exporter of tanned hides and skins, leather goods, cotton piecegoods and yarn, tea, coffee, spices, engineering goods and automobile ancillaries.

IRRIGATION AND POWER

Important irrigation schemes implemented since Independence are the Bhavani, the Amravati, the Vaigai, the Parambikulam-Aliyar, the Krishnagiri, the Sattanur and the Pullambadi-Kattalai high level canal.

There are 17 hydro-electric stations and 3 thermal stations in the state. The total installed capacity of power, hydel and thermal, in June 1973 was 2,185 mw. Construction of an atomic power station at Kalpakkam in Chingleput district is in progress. Tamil Nadu had 61,105 electrified towns, villages and hamlets by 30 April 1974.

GOVERNMENT

Governor: K.K. Shah

Council of Ministers[1]

Chief Minister: M. Karunanidhi
Cabinet Ministers: V.R. Nedunchezhiyan, K. Anbazhagan, N.V. Natarajan, P.U. Shanmugam, S. Madhavan, S.J. Sadiq Pasha, Si. Pa. Aditanar, A.P. Dharmalingam, P. Narayanaswamy, K. Rajaram, O.P. Raman, S. Ramachandran, N. Rajangam, C.V.M. Annamalai and M. Kannappan.

Legislative Council[1]

Chairman: C.P. Chittrarasu
Deputy Chairman: M.P. Sivagnanam

Legislative Assembly[1]

Speaker: K. Govindan
Deputy Speaker: V. Ganapathy

High Court[2]

Chief Justice: K. Veeraswami
Judges: P.S. Kailasam, K.S. Venkataraman, N.K. Reddy, T. Ramaprasada Rao, M.M.K. Ismail, K.N. Mudaliar, P.R. Gokulakrishnan, Gopalswami Ramanujam, V. Ramaswamy, S.P. Maharajan, B.S. Somasundaram, N.S. Ramaswami, C.J.R. Paul, S. Natarajan and A. Varadarajan.
Additional Judges: V. Seetharaman, S.R. Pandia and S. Mohan.

Public Service Commission[1]

Chairman: J.A. Ambasankar
Members: P.S. Kumaravelu, C. Sundaramurthi, S.M. Kamaluddin and R. Pandurangan.

Chief Secretary: P. Sabanayagam

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[3]

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Chingleput	7,920	29,07,599	Kancheepuram
2.	Coimbatore	15,673	43,73,178	Coimbatore
3.	Dharmapuri	9,643	16,77,775	Dharmapuri
4.	Kanyakumari	1,684	12,22,549	Nagercoil
5.	Madras	128	24,69,449	Madras
6.	Madurai	12,629	39,38,197	Madurai
7.	Nilgiris	2,549	4,94,015	Ootacamund
8.	North Arcot	12,265	37,55,797	Vellore
9.	Ramanathapuram	12,578	28,60,207	Madurai
10.	Salem	8,643	29,92,616	Salem
11.	South Arcot	10,898	36,17,723	Cuddalore
12.	Thanjavur	9,735	38,40,732	Thanjavur
13.	Tiruchchirappalli	14,291	38,48,816	Tiruchchirappalli
14.	Tirunelveli	11,433	32,00,515	Tirunelveli

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[1] As on 12 June 1974.

[2] As on 25 May 1974.

[3] As on 1 July 1971. Subsequently, a new district of Pudukkottai was constituted in 1974.

TRIPURA

Area: 10,477 sq. km
Capital: Agartala

Population: 15,56,342
Principal languages: Bengali, Tripuri and Manipuri

AGRICULTURE

About 60 per cent of the area is under forests. Irrigated area is seven per cent of the cultivated area. Rice, jute and *mesta*, potatoes, oilseeds, sugarcane and cotton are the main crops. Production of rice in 1973-74 was estimated to be 3.69 lakh tonnes.

INDUSTRY

Tea is the major industry in Tripura. Tea plantations cover an area of about 5,376 hectares and the annual production of processed tea is about 29.58 lakh kg. Important cottage industries are handloom, handicrafts and khadi.

IRRIGATION AND POWER

A number of schemes of lift irrigation and installation of tube-wells were taken up in the Fourth Plan. Sixty-three schemes have so far been completed and 2 more are nearing completion. With the completion of all these schemes, more than **890** hectares of land will be brought under cultivation.

The total installed power capacity in 1973 was over 5 mw. In addition, power drawn from Assam Grid was 2.4 mw. Ninety-five villages had been electrified and 25 pumpsets energised by June 1973.

GOVERNMENT

Governor: L.P. Singh

Council of Ministers[1]

Chief Minister: S. Sen Gupta
Cabinet Ministers: Monoranjan Nath, H.C. Chowdhury, D.K. Choudhury and K.C. Das.
Deputy Ministers: M. Ali, Smt Basana Chakraborty and S.C. Shome.

Legislative Assembly[1]

Speaker: Manindralal Bhowmik
Deputy Speaker: Usha Ranjan Sen

High Court

The jurisdiction of Gauhati High Court extends over Tripura. For list of judges, see under Assam.

Chief Secretary: V.P. Singhal

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. North Tripura	3,541	4,05,009	Kailashahar
2. South Tripura	3,577	3,99,728	Udaipur
3. West Tripura	3,359	7,51,605	Agartala

UTTAR PRADESH

Area: 2,94,413 sq. km
Capital: Lucknow

Population: 8,83,41,144
Principal language: Hindi

AGRICULTURE

The principal food crops are wheat, gram, rice, barley, maize, sesamum, bajra and mustard. Cotton, linseed, groundnut, sugarcane, tea and tobacco are the important cash crops. Jute is also cultivated in some areas. It is the main opium growing state in India. Production of foodgrains was 181.3 lakh tonnes in 1972-73 as against 176.7 lakh tonnes in 1971-72; sugarcane production was 567 lakh tonnes as against 493 lakh tonnes and oilseeds production 15.9 lakh tonnes as against 13 lakh tonnes.

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[1] As on 24 May 1974.

Forests cover 8.6 per cent of the area of the state.

INDUSTRY

Uttar Pradesh is one of the principal sugar producing states. While the handloom industry is the largest cottage industry, cotton and woollen textiles, leather and footwear, distilleries and breweries, paper and chemicals, and glass and glass products are some of the other flourishing industries.

A number of big public undertakings have been set up in the state. These are: the Bharat Electricals at Hardwar, the Indian Drugs and Pharmaceuticals at Rishikesh, the Diesel Locomotive factory at Varanasi, fertilizer factory at Gorakhpur, the Triveni Structurals at Naini, the deep freeze meat plant at Tundla, the Hindustan Aeronautics at Lucknow and two cement factories at Churk and Dalla.

The traditional handicrafts are silk fabrics, metal-ware, woodwork, ceramics, stone work, dolls, artistic leather articles, ivory articles, papier mache, perfumery, bamboo products and musical instruments.

IRRIGATION AND POWER

The state has some of the oldest canal systems in the country among which are the eastern Yamuna canal, the upper and lower Ganga canals, Agra canal, Betwa canal, Sarda canal and Ken canal. Important irrigation projects implemented since 1947 are Matatilla Dam, Ramganga, western Gandak canal and Sarda Sagar, besides a number of small and medium irrigation projects. The first stage of the Rs 200-crore Sarda Sahayak irrigation project was commissioned in 1974. On completion in 1978-79, this project will irrigate over 10.70 lakh hectares in 13 backward and drought-prone districts.

The total installed capacity of power, both hydel and thermal, was 1,680 mw on 31 March 1973. An atomic power station is to be set up at Narora in Bulandshahr district. The state had only 110 electrified villages in 1951; the number increased to 29,389 in 1974. For irrigation, 2,15,000 pumpsets/tube-wells had been energised up to 31 March 1973 as against 3,000 tube-wells in 1951.

GOVERNMENT

Governor: M. Channa Reddy

Elections to the State Assembly were held in February 1974. Out of the total number of 4,98,16,561 voters, 56.86 per cent exercised their franchise. The new ministry headed by H.N. Bahuguna was sworn in on 5 March 1974.

Council of Ministers[1]

Chief Minister: H.N. Bahuguna

Cabinet Ministers: Narain Dut Tewari, Bal Deo Singh Arya, Mahmood Ali Khan, Swami Prasad Singh, Ramjilal Sahayak, Ajit Pratap Singh, Salig Ram Jaiswal, Raj Mangal Pandey, Istifa Hussain Smt Rajendra Kumari Bajpai, Jagdish Saran Agarwal, Virendra Verma, Narain Singh, Ambar Rizvi, Prabha Narayan Singh, S.P. Singh, Charan Singh, Lokpati Tripathi and Smt Mohsina Kidwai.

Ministers of State: Gopinath Dixit, Raj Behari Singh, Narendra Singh Bhandari, Kazi Jalil Abbasi, Nawab Singh Yadav, Virendra

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[1] As on 10 February 1975.

Swarup Bhatnagar, Azizul Rahman, Jagannath Chaudhary, Sheo Nath Singh and Sheo Prasad Singh.
Deputy Ministers: Ramkrishna Dwivedi, Virbahadur Singh, Chanchal Singh, Bhanu Pratap Singh, Devendra Singh, Jagannath Prasad, Lalsa Ram, Shivlal Balmiki and Agha Zaidi.

Legislative Council[1]
Chairman: Virendra Swaroop
Deputy Chairman: Kunwar Devendra Pratap Singh

Legislative Assembly[1]
Speaker: Vasudev Singh
Deputy Speaker: Shivnath Khushwah

High Court[2]
Chief Justice: D.S. Mathur[3]
Judges: K.B. Asthana, G.C. Mathur, Satish Chandra, Yashoda Nandan, R.L. Gulati, R.B. Misra, K.N. Srivastava, C.D. Parekh, O.P. Trivedi, Hari Swarup, M.N. Shukla, K.B. Srivastava, Jagmohan Lal, H.N. Seth, M.H. Hussain, S.B. Malik, Jagmohan Lal Sinha, K.N. Singh, C.S.P. Singh, Gopinath, T.S. Misra, N.D. Ojha, K.N. Seth, P.N. Bakshi and H.N. Kapoor.
Additional Judges: H.L. Kapoor, Onkar Singh, Prem Prakash, Sarup Krishna Kaul, Chandra Prakash, Mahesh Prakash Mehrotra, Dwarkanath Jha, Amitav Banerji, Brahma Nath Katju and Krishna Chandra Agarwal.

Public Service Commission[4]
Chairman: Ram Lal Singh
Members: Basant Singh Seth, Vir Sen and Sada Behari Mathur.

Chief Secretary: B.D. Sanwal

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1	2	3	4
1. Agra	4,816	23,08,638	Agra
2. Aligarh	5,024	21,11,829	Aligarh
3. Allahabad	7,255	29,37,278	Allahabad
4. Almora	7,023	7,50,038	Almora
5. Azamgarh	5,744	28,57,484	Azamgarh
6. Bahraich	6,871	17,26,972	Bahraich
7. Ballia	3,183	15,88,935	Ballia
8. Banda	7,645	11,82,215	Banda
9. Bara Banki	4,422	16,35,593	Bara Banki
10. Bareilly	4,125	17,79,867	Bareilly
11. Basti	7,309	29,84,090	Basti
12. Bijnor	4,852	14,90,185	Bijnor
13. Budaun	5,158	16,45,967	Budaun
14. Bulandshahr	4,895	20,73,343	Bulandshahr
15. Chamoli	9,125	2,92,571	Chamoli
16. Dehra Dun	3,088	5,77,306	Dehra Dun
17. Deoria	5,400	28,12,350	Deoria
18. Etah	4,449	15,17,925	Etah
19. Etawah	4,327	14,47,702	Etawah
20. Faizabad	4,427	19,27,281	Faizabad
21. Farrukhabad	4,349	15,56,930	Fatehgarh
22. Fatehpur	4,168	12,78,254	Fatehpur
23. Garhwal	5,440	5,53,028	Pauri
24. Ghazipur	3,381	15,31,654	Ghazipur
25. Gonda	7,331	23,02,029	Gonda
26. Gorakhpur	6,316	30,38,177	Gorakhpur
27. Hamirpur	7,192	9,88,215	Hamirpur

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[1] As on 10 February 1975. [2] As on 25 May 1974.
[3] K.B. Asthana took over as Chief Justice on 13 November 1974.
[4] As on 15 May 1974.

1	2	3	4
28. Hardoi	6,012	18,49,519	Hardoi
29. Jalaun	4,549	8,13,490	Orai
30. Jaunpur	4,040	20,05,434	Jaunpur
31. Jhansi	10,069	13,07,058	Jhansi
32. Kanpur	6,121	29,96,232	Kanpur
33. Kheri	7,691	14,86,590	Lakhimpur
34. Lucknow	2,528	16,17,846	Lucknow
35. Mainpuri	4,254	14,45,534	Mainpuri
36. Mathura	3,797	12,90,307	Mathura
37. Meerut	5,944	33,66,953	Meerut
38. Mirzapur	11,301	15,41,088	Mirzapur
39. Moradabad	5,946	24,28,971	Moradabad
40. Muzaffarnagar	4,245	18,02,289	Muzaffarnagar
41. Naini Tal	6,792	7,90,080	Naini Tal
42. Pilibhit	3,504	7,52,114	Pilibhit
43. Pithoragarh	7,217	3,13,747	Pithoragarh
44. Pratapgarh	3,730	14,22,707	Bela
45. Rae Bareli	4,603	15,10,812	Rae Bareli
46. Rampur	2,372	9,01,209	Rampur
47. Saharanpur	5,526	20,54,834	Saharanpur
48. Shahjahanpur	4,581	12,86,104	Shahjahanpur
49. Sitapur	5,738	18,84,400	Sitapur
50. Sultanpur	4,424	16,42,928	Sultanpur
51. Tehri-Garhwal	4,421	3,97,385	Narendra Nagar
52. Unnao	4,586	14,84,393	Unnao
53. Uttarkashi	8,016	1,47,805	Uttarkashi
54. Varanasi	5,091	28,52,459	Varanasi

WEST BENGAL

Area: 87,853 sq. km
Capital: Calcutta
Population: 4,43,12,011
Principal language: Bengali

AGRICULTURE

About 57.5 per cent of the total population of West Bengal is engaged in agricultural pursuits. Irrigated area forms about 26 per cent of the cultivated area which is about 60 per cent of the total area. The state occupies a leading position among the rice producing states in the country. The area under paddy is nearly 70 per cent of the total cultivated area. Other important food crops are wheat, maize, barley, gram and peas. Among the cash crops, the most important are jute, tea and pan leaf, while oilseeds, tobacco and sugarcane are also produced. Production of foodgrains was only 68 lakh tonnes in 1972-73 as a result of natural calamities as against 78.55 lakh tonnes in 1971-72. However, production of oilseeds rose to 64,000 tonnes in 1972-73 as against 62,900 tonnes in 1971-72. The state earns considerable foreign exchange through export of jute and tea.

Temperate fruits have been successfully grown in the Darjeeling hills. This is expected to help the economic development of this region.

Forests cover about 13.4 per cent of the area of the state. Major forest products are timber, honey,firewood,charcoal, *katha* and bamboo.

INDUSTRY

Coal and fire-clay are the two most important minerals found in West Bengal. Other minerals are china clay, limestone, copper, iron, silica, manganese, sandstone and moulding sand.

West Bengal is a major industrial state in the country. There are two steel plants—one in the public sector at Durgapur and the other in the private sector at Burnpur. The other major industries are jute, tea, cotton textiles, silk, automobile, bicycle, light engineering, paper, chemicals, aluminium, sugar, timber processing, ceramic and glass, leather and footwear, bone-meal and dairying. New industrial areas are being developed at Asansol, Durgapur, Farakka, Haldia, Kalyani, Kharagpur, Santaldih and Siliguri. The Fertilizer Corporation of India is setting up a fertilizer project at Haldia, where a new port and an oil refinery are also under construction.

IRRIGATION AND POWER

Important multi-purpose irrigation and power schemes implemented since 1947 are the Damodar Valley project and the Mayurakshi project. The other major irrigation project is the Kangsabati project.

Among the four major power projects are the Bandel thermal power station (320 mw) and the Durgapur power project (250 mw). The Calcutta Electric Supply Corporation has four stations with an installed capacity of 362 mw. In addition, the Damodar Valley Corporation also supplies power (310 mw) to West Bengal from its generating stations. The total installed capacity is 1,367 mw.

West Bengal had only 386 electrified villages in 1951; the number increased to 9,577 by the end of 1973-74. More than 6,400 irrigation pumps had been energised.

GOVERNMENT

Governor: A.L. Dias

Council of Ministers[1]

Chief Minister: Siddhartha Shankar Ray
Cabinet Ministers: Abdus Sattar, Jainal Abedin, Mrityunjoy Banerjee, A.B.A. Gani Khan Chaudhuri, Tarun Kanti Ghosh, Sankar Ghosh, Gurupada Khan, Sitaram Mahato, Gopaldas Nag, Gyansingh Sohanpal, Ajit Panja and Bholanath Sen.
Ministers of State: Pradip Bhattacharyya, Ananda Mohan Biswas, Prafulla Kanti Ghosh, Fazle Haque, Danish Lakra, Subrata Mukherjee, Gobinda Naskar, Ramkrishna Saraogi and Atish Chandra Sinha.
Deputy Ministers: Smt Amala Soren, G. Gurung and Matehar Hussain.

Legislative Assembly[2]

Speaker: Apurba Lal Mazumdar
Deputy Speaker: Haridas Mitra

High Court[3]

Chief Justice: S.P. Mitra
Judges: C.N. Laik, B.C. Mitra, A.C. Gupta, Syed Sadat Abul Masud, A.N. Sen, S.K. Mukherjee, S.C. Ghose, R.M. Datta, N.C. Talukdar, S.C. Deb, A.K. Sinha, S. Mukherji, T.K. Basu, S.K. Datta, P.K. Banerjee, A.K. Basu, A.K. Sen, Chittatosh Mukherjee, A.K. Mookerji, M.M. Dutt, P.C. Borooah, A.K. De, S.K. Roy Chaudhuri, K.J. Sengupta, R.N. Bhattacharyya, S.K. Bhattacharyya, S.K. Hazra, A.K. Janah, P.K. Chanda, N.C. Mukharji, A.N. Banerjee and S. Basu.
Additional Judges: Ajit Kumar Sarkar, D.K. Sen, Debi Prosad Pal, A.P. Bhattacharya, H.N. Sen, R.N. Pyne, B.C. Ray, M.N. Roy and B.C. Basak.

Public Service Commission[2]

Chairman: J.L. Kundu
Members: Md. Sabir Khan, H.C. Datta, K.C. Saha, A.K. Majumdar and M. K. Gupta.

Chief Secretary: B.R. Gupta.

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[1] As on 30 January 1975.

[2] As on 7 July 1974.

[3] As on 25 May 1974.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	Area (sq. km)	Population (1971 census)	Headquarters
1.	Bankura	6,881	20,31,039	Bankura
2.	Birbhum	4,550	17,75,909	Suri
3.	Burdwan	7,028	39,16,174	Burdwan
4.	Calcutta	104	31,48,746	Calcutta
5.	Cooch Behar	3,386	14,14,183	Cooch Behar
6.	Darjeeling	3,075	7,81,777	Darjeeling
7.	Hooghly	3,145	28,72,116	Chinsurah
8.	Howrah	1,474	24,17,286	Howrah
9.	Jalpaiguri	6,245	17,50,159	Jalpaiguri
10.	Malda	3,713	16,12,657	English Bazar
11.	Midnapore	13,724	55,09,247	Midnapore
12.	Murshidabad	5,341	29,40,204	Baharampur
13.	Nadia	3,926	22,30,270	Krishnanagar
14.	Purulia	6,259	16,02,875	Purulia
15.	Twenty Four Parganas	13,796	84,49,482	Alipur
16.	West Dinajpur	5,206	18,59,887	Balurghat

ANDAMAN AND NICOBAR ISLANDS

Area: 8,293 sq. km *Population:* 1,15,133
Headquarters: Port Blair

AGRICULTURE

About 19 per cent of the total working population of the Islands is engaged in agricultural pursuits. Irrigated area is negligible. The tropical climate and fertile soil are well suited to the growth of rice, rubber, coffee, coconut, areca-nut, cashew nut, fruits and spices. Among fruits, lemon, mango, guava, orange, custard apple, pineapple and banana are extensively grown. The production of rice increased from 13,325 tonnes in 1971-72 to over 16,460 tonnes in 1972-73.

Forests occupy an area of 7,468 sq. km. Important forest products are various types of timber, bamboo and pandanus.

INDUSTRY

Timber, furniture making and shell products are the major industries. Plywood, match-splint and oil milling are the other industries. Mat making from pandanus leaves is an important cottage industry. Other cottage industries include leather goods, handicrafts, handlooms and coir making.

Small-scale units manufacturing aluminium products, soap, candles and stainless steel products have come up during recent years.

IRRIGATION AND POWER

Irrigation is done mostly through wells. The total installed capacity of power by 31 March 1974 was 3.08 mw. Of 390 villages in the Islands, 40 villages had been electrified by 31 March 1974 as compared to nil in 1951.

GOVERNMENT

Chief Commissioner: Harmander Singh

High Court

The jurisdiction of Calcutta High Court extends over Andaman and Nicobar Islands. For list of judges, see under West Bengal.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

Chief Secretary: D.C. Misra

ARUNACHAL PRADESH

Area: 83,578 sq. km *Population:* 4,67,511
Capital: Itanagar

AGRICULTURE

Nearly 46 per cent of the population of Arunachal Pradesh is engaged in agriculture. Irrigated area forms 17 per cent of the total cultivated area or about 14,000 hectares. The traditional method of agriculture is *jhuming*, a kind of shifting cultivation. The forests are cleared and crops are raised for one to three years, depending on the fertility of the soil. Thereafter, the cultivators move on elsewhere. However, sedentary cultivation is followed in the valleys and terraces, the methods being called 'wet rice cultivation' and 'terrace rice cultivation' respectively. Main crops are rice, maize, millets, wheat and mustard. Forests cover 61,000 sq. km of the area.

INDUSTRY

Principal industries are forest-based. Medium industries established include saw mills, rice mills and fruit preservation units.

IRRIGATION AND POWER

There is no major irrigation or power project in Arunachal Pradesh. Four micro-hydel projects at Kalaktang, Rahung, Basar and Pasighat have been commissioned. Five more were to be commissioned in 1974-75. The total installed capacity in March 1973 was over 3 mw. Arunachal Pradesh had only seven electrified villages in 1961 and the number increased to 59 by 31 March 1974.

GOVERNMENT

Chief Commissioner: K.A.A. Raja

High Court

The jurisdiction of Gauhati High Court extends over Arunachal Pradesh. For list of judges, see under Assam.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

Chief Secretary: R. Yusaf Ali

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Kameng	13,724	86,001	Bomdila
2. Lohit	24,427	62,865	Tezu
3. Siang	23,723	1,21,936	Along
4. Subansiri	14,797	99,239	Ziro
5. Tirap	6,907	97,470	Khonsa

CHANDIGARH

Area: 114 sq. km *Population:* 2,57,251
Headquarters: Chandigarh

AGRICULTURE

Irrigated area covered 41.15 per cent of the total cultivated area during 1973-74. Rice, wheat, maize and bajra are the principal food crops grown. The production of foodgrains in 1973-74 was 7,780 tonnes compared to 7,720 tonnes in 1972-73. The area under vegetables is fast increasing. The area under vegetables and fruits was about 140 hectares and 90 hectares respectively in 1973-74.

Forests cover 27.5 per cent of the area.

INDUSTRY There are eight industries in the large and medium sector and approximately 500 units in the small industries sector. The major industries are wool tops and yarn, hosiery needles, electric meters, antibiotics and medicines, bicycle rims, chains and free wheels, card-board and steel furniture. The cottage and small-scale industries include iron and steel re-rolling, steel fabrication, sanitary fittings, door fittings, electronic components, cutlery, fountain pen nibs, machine screw, hardware, electrical appliances, plastic shoes, cotton ginning, machine parts, cigarette making machines, utensils, paints and varnishes, radios and transistors, auto and sewing machine parts, tiles, conduit pipes and rivets, miniature bulbs, insecticides and pesticides, auto cables and domestic cables, thermometers, wire drawing and wire products, soaps and chemicals and cement pipes. An electronics industry complex is being developed and a bakery plant is being put up.

POWER The total installed power capacity on 31 March 1974 was 35 mw compared to 15 mw in May 1967. All the villages had been electrified by 31 March 1974 as against 14 in 1967. The number of pumpsets/tubewells energised for irrigation was 424 on 31 March 1974.

GOVERNMENT *Chief Commissioner:* N.P. Mathur

High Court The jurisdiction of the High Court of Punjab and Haryana extends over Chandigarh. For list of judges, see under Haryana.

Public Service Commission Recruitment is made through the Union Public Service Commission.

DADRA AND NAGAR HAVELI

Area: 491 sq. km *Population:* 74,170
Headquarters: Silvassa

AGRICULTURE Agriculture is the main occupation of the *Adivasis,* who comprise 87 per cent of the total population. Rice and ragi are the major food crops, while wheat is also grown in some areas. Main cash crops are oilseeds and sugarcane. About 17,000 hectares of land is under cultivation. Agriculture is dependent on rainfall. The production of foodgrains was 10,900 tonnes in 1972-73.

Forests occupy 41.5 per cent of the area. Main forest products are timber, khair, sadad, shisam and shivan.

INDUSTRY There are no major industries. A beginning has, however, been made in this direction by establishing an industrial estate at Piparia near Silvassa. At present, 48 units are working in this industrial estate. Automobile parts, pesticides, opticals, engineering goods, hand-made paper and tanning are some of the industries taken up by these units.

IRRIGATION AND POWER There is no major or medium irrigation scheme. However, the union territory is participating with the Government of Gujarat in Damanganga reservoir project. Minor irrigation schemes at Khanv and Bindrabin have been completed. The irrigation scheme at Tigra has been expanded to cover more area.

Power is obtained through an 11 kv transmission line from Vapi sub-station of Gujarat Electricity Board. Out of 72 villages, 18 had been electrified by May 1974; the number of pumpsets/tube-wells energised was 93.

GOVERNMENT *Administrator:* S.K. Banerji

High Court The jurisdiction of Bombay High Court extends over this union territory. For list of judges, see under Maharashtra.

Public Service Commission Recruitment is made through the Union Public Service Commission.

DELHI

Area: 1,485 sq. km *Population:* 40,65,698
Headquarters: Delhi

AGRICULTURE Wheat, gram, rice, maize, bajra and jowar are the principal food crops. Small quantities of cash crops, such as, sugarcane, mustard and tobacco are also grown. Grape cultivation in villages around Delhi has become popular. The production of foodgrains in 1972-73 was 1.07 lakh tonnes as against 1.20 lakh tonnes in 1971-72. The fall in production was due to switching over to vegetable cultivation. The area under vegetables in 1973-74 was 22,300 hectares as against 20,500 hectares during 1972-73.

INDUSTRY There were about 32,000 industrial units employing 2,52,000 persons in Delhi in 1973. The total investment in these units was Rs 216 crores and the value of total production was Rs 346 crores. Prominent industries are steel castings, drugs and chemicals, paints and varnishes, television sets, radios, transistors, electrical goods, machine tools and vegetable oils. Other industries include leather and rubber goods, pottery, textiles and tanning. The well-known cottage industries of Delhi are ivory works, gold and silver embroidery, jewellery, brass and copperware.

IRRIGATION AND POWER There is no major irrigation project in Delhi. Only minor works and tube-wells help in irrigation. A central thermal power station with 3 generating units of 100 mw each estimated to cost Rs 40 crores is being completed at Badarpur. The total installed capacity in 1973-74 was 278 mw. Delhi has electrified all the villages as against only 24 in 1957. For irrigation, 6,527 pumpsets/tube-wells had been energised by 31 March 1974, while the number was nil in 1951.

GOVERNMENT *Lt. Governor:* Krishan Chand

Metropolitan Council[1] *Chief Executive Councillor:* Radha Raman
Executive Councillors: Mange Ram, O.P. Behl and Krishan Swarup.

High Court[1] *Chief Justice:* T.V.R. Tatachari
Judges: Jagjit Singh, S.N. Shankar, V.S. Deshpande, S. Rangarajan, Prakash Narain, Pritam Singh Safeer, M.R.A. Ansari, Vyas Dev Misra, B.C. Misra, Rajindar Sachar and Prithvi Raj.
Additional Judges: D.K. Kapur, T.P.S. Chawla, A.B. Rohatgi, R.N. Aggarwal, H.L. Anand, Yogeshwar Dayal, F.S. Gill, M.S. Joshi and S.S. Chedda.

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[1] As on 22 February 1975.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

Chief Secretary: J.K. Kohli

GOA, DAMAN AND DIU

Area: 3,813 sq. km
Population: 8,57,771
Capital: Panaji
Principal languages: Marathi, Konkani and Gujarati

AGRICULTURE

Irrigated area forms about 6.4 per cent of the total cultivated area. Rice is the only important food crop. Production of wheat and groundnuts in recent years has shown encouraging results. Production of rice in 1973-74 was 88,186 tonnes. Other crops grown in small quantities include ragi, maize, jowar and bajra. The main cash crops are coconut, cashew nut, areca-nut and fruits like pineapple, mango and banana. An area of 1,420 hectares was brought under cashew cultivation in 1973-74.

Forests cover 28.6 per cent of the total area.

INDUSTRY

The mineral wealth consists of iron ore, manganese, ferro-manganese, bauxite and silica sand. The mining industry contributes substantially to the economy of the territory. The estimated production of these minerals during 1973-74 was 22,10,688 tonnes. The foreign exchange earning resulting from the export of ores was over Rs 63 crores.

On 31 March 1974, the number of small-scale industries registered was 1,292 as compared to 1,042 in 1972-73. They included workshops, bakeries, printing presses, saw mills, tyre retreading units, fruit and fish canning, cashew processing, mosaic tiles, soap manufacture, furniture making and also manufacture of typewriter ribbons, carbon papers, automobile batteries, acrylic sheets, polythelene bags, sodium silicate, fishing nets, zip-fasteners, stoves and footwear, spectacle frames, chemical industries, bifocal lenses and stainless steelwares.

There are 21 large and medium scale industries. They include a flour mill, a textile mill, a steel rolling mill, brewery plants and a pelletisation plant. A fertilizer project involving an investment of about Rs 58 crores has gone into production. In 1973-74, the production of urea was 1,41,700 tonnes valued at Rs 15 crores.

IRRIGATION AND POWER

Sixteen lift irrigation schemes capable of irrigating about 512 hectares had been implemented till March 1974. In addition, 8 lift irrigation schemes to irrigate about 290 hectares have been taken up. Besides, 25 tanks have been renovated and they irrigate about 400 hectares. Forty open type bhandharas have also been constructed to irrigate another 730 hectares of land. For irrigation, 266 pumpsets/tube-wells had been energised in Goa by 31 March 1973.

The number of electrified villages was 240 in 1974 (31 March) as compared to nil in 1961.

GOVERNMENT

Lt. Governor: S.K. Banerji

Council of Ministers[1]

Chief Minister: Smt Shashikala G. Kakodkar
Cabinet Ministers: A.K.S. Usgaonkar and Pratapsingh R. Rane.

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[1] As on 17 June 1974.

Legislative Assembly[1]

Speaker: N.S. Fugro
Deputy Speaker: C.U. Chodankar

High Court

The Judicial Commissioner's court has been declared as a High Court for the purpose of Articles 132, 133 and 134 of Constitution.
Judicial Commissioner: Tito Menezes

Public Service Commission

Recruitment is made through the Union Public Service Commission.

Chief Secretary: T. Kipgen

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

	District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1.	Daman	72	38,739	Daman
2.	Diu	40	23,912	Diu
3.	Goa	3,701	7,95,120	Panaji

LAKSHADWEEP

Area: 32 sq. km
Population: 31,810
Headquarters: Kavaratti

AGRICULTURE

Coconut is the only major crop with a turnover of over Rs 70 lakhs a year. The area under coconut cultivation was 2,760 hectares in 1973-74.

INDUSTRY

Fishing is the main industry. The sea around the islands is highly productive. It is particularly rich in tuna and shark varieties of fish. Over 110 mechanised fishing boats are engaged in fishery operations. There is a factory for canning tuna fish at Minicoy Islands. There is also a boat-building yard.

Coir spinning and coir yarn production are the main cottage industries with an annual turnover of Rs 6 to 7 lakhs. Coir products are exchanged for foodgrains and other consumer goods through government depots.

POWER

Out of ten inhabited islands, nine had been electrified by 1973-74.

GOVERNMENT

Administrator: W. Shaiza

High Court

The jurisdiction of the Kerala High Court extends over Lakshadweep. For list of judges, see under Kerala.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

MIZORAM

Area: 21,087 sq. km
Population: 3,32,390
Headquarters: Aizawl
Principal languages: Mizo and English

AGRICULTURE

About 87 per cent of the people of Mizoram are engaged in agricultural pursuits. Irrigated area forms about seven per cent of the total cultivated area. In the hill slopes, maize and paddy are cultivated. Other crops grown are pulses, sugarcane, chillies, ginger, tobacco, vegetables, turmeric, potato, banana and pineapple. Shift cultivation is ordinarily practised though terrace rice cultivation and wet rice cultivation practices have been taken up in recent years. Production of foodgrains in 1973-74 was about 48,520 tonnes; ginger 4,650 tonnes; sugarcane 3,740 tonnes; oilseeds (til) 1,256 tonnes; potato 1,370 tonnes; pulses 385 tonnes; and soya beans 158 tonnes.

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[1] As on 17 June 1974.

Forests cover 20 per cent of the area. Important forest products are timber, bamboo, cane and *agar*.

INDUSTRY

There is no major industry in Mizoram. Handloom and handicrafts are the only cottage industries. Rice milling, oil and flour milling, mechanised bamboo workshops, saw milling, brick making, aluminium casting, and furniture workshops are some of the small industries which have been established. There is sufficient raw material for establishing a paper-pulp project and according to a survey conducted in 1973-74 the northern part of Mizoram has sufficient raw material to feed a full-fledged paper mill with a capacity of 200 tonnes a day.

IRRIGATION AND POWER

Schemes like the cementing of water points, construction of small reservoirs at the collection points in the streams or springs and some improvised way of bringing water as near the villages as possible are being implemented. Irrigation is difficult because of the mountainous terrain.

There are 5 diesel power stations to generate electricity mainly for domestic consumption at Aizawl, Lunglei, Kolasib, Serchhip and Hnahthial. The total power generation capacity was estimated to be about 1.3 mw in 1973-74.

GOVERNMENT

Lt. Governor: S.K. Chibber

Council of Ministers[1]

Chief Minister: Chalchhunga
Ministers: Khawtinkhuma, R. Thangliana, Vaivenga and J. Lalsangzuala.
Deputy Ministers: P.B. Nikhuma and Zalawma.

Legislative Assembly[1]

Speaker: H. Thansanga
Deputy Speaker: Hiphei

High Court

The jurisdiction of Gauhati High Court extends over Mizoram. For list of judges see under Assam.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

Chief Secretary: R.M. Agrawal

PONDICHERRY

Area: 480 sq. km
Capital: Pondicherry
Population: 4,71,707
Principal languages: Tamil and French

AGRICULTURE

Nearly 14.88 per cent of the population of Pondicherry is engaged in agriculture and other allied pursuits. Irrigated area forms about 78 per cent of the total cultivated area. Rice is the main food crop. Other crops grown in small quantities are jowar, bajra and maize. Sugarcane and oilseeds are the principal cash crops. Production of foodgrains in 1972-73 was 80,898 tonnes and sugarcane 1.49 lakh tonnes. Forests are practically non-existent.

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[1] As on 22 May 1974.

INDUSTRY

Textiles, sugar, electrical appliances, camphor, leather goods, wooden articles and bicycle parts are the main industries. The government distillery at Pondicherry was expanded in 1973 for producing 12,707 litres of industrial alcohol per day.

IRRIGATION AND POWER

There is no major irrigation project in Pondicherry. Some minor irrigation schemes include boring of wells.

There are no power generation projects. All the 333 villages had electricity by 31 March 1974 as against only 72 in 1951. For irrigation, 5,726 pumpsets/tube-wells had been energised by March 1973.

GOVERNMENT

Lt. Governor: Chhedi Lal

Elections to the legislative Assembly were held in February 1974. Out of the total 2,62,305 voters, 85.90 per cent exercised their franchise. A ministry headed by S. Ramaswamy was sworn in on 6 March 1974. However, it resigned on 27 March 1974. The union territory came under President's rule on 29 March 1974.

Legislative Assembly[1]

Speaker: S. Pakkiam

High Court

The jurisdiction of Madras High Court extends over Pondicherry. For list of judges, see under Tamil Nadu.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

Chief Secretary: M. Chandramouli

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	*Area (sq. km)*	*Population (1971 census)*	*Headquarters*
1. Karaikal	161	1,00,042	Karaikal
2. Mahe	9	23,134	Mahe
3. Pondicherry	290	3,40,240	Pondicherry
4. Yanam	20	8,291	Yanam

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[1] As on 6 June 1974.

24 LAWS OF PARLIAMENT DURING 1973

Parliament passed seventy Bills during 1973. These, together with the dates on which they were passed by the two Houses of Parliament and received the President's assent, are listed in Table 24.1. The scope and purpose of selected laws are explained below.

The Constitution (Thirty-first Amendment) Act, 1973

Raises the upper limit for the representation of the states in the House of People from 500 members to 525 members and reduces the upper limit for the representation of the union territories from 25 to 20 members.

The Coal Mines (Nationalisation) Act, 1973

Provides for the acquisition and transfer of the right, title and interest of the owners in respect of the coal mines specified in the Act with a view to re-organising and reconstructing such coal mines to ensure the rational, co-ordinated and scientific development and utilisation of coal resources consistent with the growing requirements of the country.

The North-Eastern Hill University Act, 1973

Seeks to establish and incorporate a teaching and affiliating university for the hill areas of the north-eastern region.

The Cinematograph (Amendment) Act, 1973

Amends the Cinematograph Act, 1952 for extending it to the State of Jammu and Kashmir to ensure uniformity in the matter of certification of films for public exhibition.

The Delhi School Education Act, 1973

Provides for better organisation and development of educational institutions in the Union Territory of Delhi for ensuring, among others, security of service of teachers and regulating the terms and conditions of their employment.

The Customs, Gold (Control) and Central Excises and Salt (Amendment) Act, 1973

Amends the Customs Act, 1962, the Gold (Control) Act, 1968, and the Central Excises and Salt Act, 1944 to make the punishment prescribed under these Acts more severe. It also makes certain other provisions in these Acts with regard to the rules of evidence and procedure to remove the loopholes in the working of these Acts and making their enforcement more effective.

The Employees' Provident Funds and Family Pension Fund (Amendment) Act, 1973

Provides for prevention of defaults in payment of contributions by the employers to the Employees' Provident Fund by making existing penal provisions more stringent and making such defaults cognizable offences.

The Foreign Exchange Regulation Act, 1973

Consolidates and amends the law regulating certain payments, dealings in foreign exchange and securities, transactions indirectly affecting foreign exchange and the import and export of currency and bullion and provides for the proper utilisation of the foreign exchange resources in the interests of the economic development of the country.

The Indian Railways (Amendment) Act, 1973

Provides for (i) recovery of cancellation charges to curb speculative reservations; (ii) prompt relief in the shape of interim payment of compensation in cases of accidents to trains carrying passengers; (iii) more stringent penalties to check wilful wrecking of trains; and (iv) punishment for causing destruction of railway property.

The Homoeopathy Central Council Act, 1973

Provides for the constitution of a Central Council of Homoeopathy and the maintenance of a Central Register of Homoeopathy.

The Advocates' (Amendment) Act, 1973

Seeks mainly to (i) extend the Advocates' Act to Jammu and Kashmir and the Union Territory of Goa, Daman and Diu to provide for uniform all-India Bar; (ii) constitute a Legal Aid Fund for the poor; (iii) abolish pre-enrolment training for entry into legal profession; and (iv) recognize foreign qualifications on reciprocal basis.

TABLE 24.1

LAWS OF PARLIAMENT DURING 1973

Sl. No.	Bill	Initiating Chamber[1]	When introduced	When passed by the originating Chamber	When passed/ returned by the other Chamber	Date of President's assent
1	2	3	4	5	6	7
1.	The Constitution (Thirtieth Amendment) Bill, 1972	L.S.	24-5-72	17-8-72	22-8-72	22-2-73
2.	The Requisitioning and Acquisition of Immovable Property (Amendment) Bill, 1973	R.S.	22-2-73	28-2-73	6-3-73	9-3-73
3.	The Diplomatic and Consular Officers (Oaths and Fees) (Extension to Jammu and Kashmir) Bill, 1973	R.S.	23-11-72	28-11-72 1-3-73[2]	20-2-73	13-3-73
4.	The Seaward Artillery Practice (Amendment) Bill, 1973	R.S.	4-12-72	7-12-72 1-3-73[3]	20-2-73	13-3-73
5.	The Appropriation (Vote on Account) Bill, 1973	L.S.	14-3-73	14-3-73	20-3-73	23-3-73
6.	The Appropriation Bill, 1973	L.S.	20-3-73	20-3-73	26-3-73	28-3-73
7.	The Appropriation (Railways) Bill, 1973	L.S.	20-3-73	20-3-73	27-3-73	29-3-73
8.	The Appropriation (Railways) No. 2 Bill, 1973	L.S.	21-3-73	21-3-73	27-3-73	29-3-73
9.	The Andhra Pradesh State Legislature (Delegation of Powers) Bill, 1973	R.S.	20-3-73	22-3-73	26-3-73	29-3-73
10.	The Andhra Pradesh Appropriation (Vote on Account) Bill, 1973	L.S.	22-3-73	22-3-73	27-3-73	30-3-73
11.	The Andhra Pradesh Appropriation Bill, 1973	L.S.	22-3-73	22-3-73	27-3-73	20-3-73
12.	The Orissa Appropriation (Vote on Account) Bill, 1973	L.S.	26-3-73	26-3-73	28-3-73	30-3-73
13.	The Orissa Appropriation Bill, 1973	L.S.	26-3-73	26-3-73	28-3-73	30-3-73
14.	The Refugee Relief Taxes (Abolition) Bill, 1973	L.S.	16-3-73	26-3-73	29-3-73	31-3-73
15.	The Union Territories Taxation Laws (Amendment) Bill, 1973	L.S.	20-3-73	26-3-73	29-3-73	31-3-73
16.	The Coal Mines (Taking Over of Management) Bill, 1973	L.S.	2-3-73	16-3-73 28-3-73[4]	26-3-73	31-3-73
17.	The Manipur Appropriation (Vote on Account) Bill, 1973	L.S.	30-3-73	30-3-73	31-3-73	1-4-73
18.	The Capital of Punjab (Development and Regulation) (Chandigarh Amendment) Bill, 1973	R.S.	18-12-72	19-12-72 29-3-73[5]	26-3-73	9-4-73

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[1] L.S. stands for Lok Sabha and R.S. for Rajya Sabha.

[2] Amendments made by Lok Sabha on 20-2-73, considered and agreed to by Rajya Sabha on 1-3-73.

[3] Amendments made by Lok Sabha on 20-2-73, considered and agreed to by Rajya Sabha on 1-3-73.

[4] Amendments made by Rajya Sabha on 26-3-73, considered and agreed to by Lok Sabha on 28-3-73.

[5] Amendments made by Lok Sabha on 26-3-73, considered and agreed to by Rajya Sabha on 29-3-73.

TABLE 24.1 (*Continued*)

1	2	3	4	5	6	7
19.	The Delhi School Education Bill, 1973	L.S.	2-9-72	27-3-73	30-3-73	9-4-73
20.	The Appropriation (No. 2) Bill, 1973	L.S.	27-4-73	27-4-73	3-5-73	5-5-73
21.	The Orissa State Legislature (Delegation of Powers) Bill, 1973	R.S.	22-3-73	29-3-73	7-5-73	10-5-73
22.	The Finance Bill, 1973	L.S.	28-2-73	3-5-73	8-5-73	11-5-73
23.	The Central Excises and Salt (Amendment) Bill, 1973	L.S.	2-5-73	7-5-73	10-5-73	19-5-73
24.	The Manipur State Legislature (Delegation of Powers) Bill, 1973	R.S.	2-5-73	8-5-73	14-5-73	19-5-73
25.	The North-Eastern Hill University Bill, 1973	L.S.	30-4-73	9-5-73	15-5-73	26-5-73
26.	The Cinematograph (Amendment) Bill, 1973	R.S.	22-11-72	27-11-72 18-5-73[6]	14-5-73	28-5-73
27.	The Coal Mines (Nationalisation) Bill, 1973	L.S.	11-5-73	14-5-73	18-5-73	30-5-73
28.	The Apprentices (Amendment) Bill, 1973	R.S.	21-11-72	27-11-72 19-5-73[7]	15-5-73	7-6-73
29.	The Manipur Appropriation Bill, 1973	L.S.	24-7-73	24-7-73	26-7-73	31-7-73
30.	The Andhra Pradesh Appropriation (No. 2) Bill, 1973	L.S.	25-7-73	25-7-73	30-7-73	31-7-73
31.	The Orissa Appropriation (No. 2) Bill, 1973	L.S.	26-7-73	26-7-73	30-7-73	31-7-73
32.	The Mysore State (Alteration of Name) Bill, 1973	L.S.	19-12-72	30-7-73	8-8-73	21-8-73
33.	The National Co-operative Development Corporation (Amendment) Bill, 1973	L.S.	16-4-73	26-7-73	6-8-73	21-8-73
34.	The Uttar Pradesh State Legislature (Delegation of Powers) Bill, 1973	R.S.	6-8-73	8-8-73	20-8-73	22-8-73
35.	The Laccadive, Minicoy and Amindivi Islands (Alteration of Name) Bill, 1973	L.S.	18-12-72	30-7-73	8-8-73	26-8-73
36.	The Appropriation (No. 3) Bill, 1973	L.S.	17-8-73	17-8-73	23-8-73	28-8-73
37.	The Customs, Gold (Control) and Central Excises and Salt (Amendment) Bill, 1973	L.S.	18-12-72	6-8-73	13-8-73	1-9-73
38.	The Agricultural Refinance Corporation (Amendment) Bill, 1973	L.S.	23-4-73	13-8-73	22-8-73	1-9-73
39.	The Appropriation (Railways) No. 3 Bill, 1973	L.S.	23-8-73	23-8-73	29-8-73	1-9-73
40.	The Payment of Bonus (Amendment) Bill, 1973	R.S.	13-8-73	16-8-73	29-8-73	1-9-73
41.	The Employees' Provident Funds and Family Pension Fund (Amendment) Bill, 1973	L.S.	7-3-73	16-8-73	23-8-73	6-9-73
42.	The Coking and Non-coking Coal Mines (Nationalisation) Amendment Bill, 1973	R.S.	16-8-73	20-8-73	4-9-73	6-9-73
43.	The Orissa Appropriation (No. 3) Bill, 1973	L.S.	28-8-73	28-8-73	4-9-73	7-9-73
44.	The Manipur Appropriation (No. 2) Bill, 1973	L.S.	29-8-73	29-8-73	4-9-73	7-9-73
45.	The Reserve Bank of India (Amendment) Bill, 1973	L.S.	24-7-73	27-8-73	3-9-73	15-9-73
46.	The Indian Railways (Amendment) Bill, 1973	L.S.	8-3-73	29-8-73	4-9-73	15-9-73
47.	The Foreign Exchange Regulation Bill, 1973	L.S.	29-8-72	27-8-73	3-9-73	19-9-73
48.	The Constitution (Thirty-first Amendment) Bill, 1973	L.S.	26-4-73	8-5-73	15-5-73	17-10-73
49.	The Foreign Awards (Recognition and Enforcement) Amendment Bill, 1973	R.S.	30-7-73	16-8-73	14-11-73	26-11-73

50.	The State Bank Laws (Amendment) Bill, 1973	R.S.	16-5-73	30-7-73	14-11-73	26-11-73
51.	The Code of Civil Procedure (Amendment) Bill, 1973	R.S.	30-7-73	12-11-73	19-11-73	29-11-73
52.	The Authorised Translations (Central Laws) Bill, 1973	R.S.	22-11-72	27-11-72 26-11-73[8]	15-11-73	5-12-73
53.	The Textiles Committee (Amendment) Bill, 1973	L.S.	6-4-73	13-11-73	22-11-73	11-12-73
54.	The Maternity Benefit (Amendment) Bill, 1973	R.S.	3-9-73	12-11-73	3-12-73	11-12-73
55.	The Press Council (Amendment) Bill, 1973	L.S.	19-11-73	27-11-73	3-12-73	14-12-73
56.	The Indian Railways (Second Amendment) Bill, 1973	L.S.	22-11-73	29-11-73	4-12-73	14-12-73
57.	The Payment of Bonus (Second Amendment) Bill, 1973	R.S.	19-11-73	21-11-73	5-12-73	14-12-73
58.	The Alcock Ashdown Company Limited (Acquisition of Undertakings) Bill, 1973	L.S.	28-11-73	6-12-73	11-12-73	14-12-73
59.	The Burn Company and Indian Standard Wagon Company (Taking Over of Management) Bill, 1973	L.S.	28-11-73	6-12-73	10-12-73	17-12-73
60.	The Central Excises and Salt (Second Amendment) Bill, 1973	L.S.	3-12-73	11-12-73	12-12-73	19-12-73
61.	The Homoeopathy Central Council Bill, 1973	R.S.	1-12-71	23-7-73 26-11-73[9]	19-11-73	19-12-73
62.	The Advocates (Amendment) Bill, 1973	R.S.	8-12-70	20-2-73 27-11-73[10]	15-11-73	22-12-73
63.	The Appropriation (Railways) No. 4 Bill, 1973	L.S.	17-12-73	17-12-73	19-12-73	22-12-73
64.	The Konkan Passenger Ships (Acquisition) Bill, 1973	L.S.	14-12-73	19-12-73	20-12-73	22-12-73
65.	The Appropriation (No. 4) Bill, 1973	L.S.	19-12-73	19-12-73	22-12-73	25-12-73
66.	The Appropriation (No. 5) Bill, 1973	L.S.	19-12-73	19-12-73	22-12-73	25-12-73
67.	The Orissa Appropriation (No. 4) Bill, 1973	L.S.	20-12-73	20-12-73	22-12-73	25-12-73
68.	The Income Tax (Amendment) Bill, 1973	L.S.	14-12-73	21-12-73	24-12-73	25-12-73
69.	The Industries (Development and Regulation) Amendment Bill, 1973	R.S.	27-8-73	30-8-73 12-12-73[11]	4-12-73	28-12-73
70.	The Mulki Rules (Repeal) Bill, 1973	L.S.	14-12-73	18-12-73	20-12-73	28-12-73

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[6] Amendments made by Lok Sabha on 14-5-73, considered and agreed to by Rajya Sabha on 18-5-73.

[7] Amendments made by Lok Sabha on 15-5-73, considered and agreed to by Rajya Sabha on 19-5-73.

[8] Amendments made by Lok Sabha on 15-11-73, considered and agreed to by Rajya Sabha on 26-11-73.

[9] Amendment made by Lok Sabha on 19-11-73, considered and agreed to by Rajya Sabha on 26-11-73.

[10] Amendments made by Lok Sabha on 15-11-73, considered and agreed to by Rajya Sabha on 27-11-73.

[11] Amendments made by Lok Sabha on 4-12-73, considered and agreed to by Rajya Sabha on 12-12-73.

Note: All the above bills were Government Bills.

25 IMPORTANT EVENTS

1973
JULY

2 New Bihar cabinet headed by Abdul Ghafoor sworn in at Patna.
11 India delivers 'Vishva Darshan', a modern fast cargo liner, to Bangladesh.
12 Dr A.L. Srivastava, noted historian, dies.
18 Chimanbhai Patel sworn in as Chief Minister of Gujarat.
20 India deposits with the Soviet government the instrument of its accession to the treaty prohibiting the implacement of nuclear and other weapons of mass destruction on the sea-bed and ocean floor.
— Asoka Mehta elected President of Congress (O).
22 Sachar Commission report on Boeing crash near Palam on 31 May released.
24 Indo-Pak emissary level talks on the humanitarian problem arising from the 1971 war begin in Rawalpindi.
25 Computer to modernise forecasting system inaugurated at the India Meteorological Department, New Delhi.
29 National Awards for Films for 1972 announced. 'Swayamvaram' gets the gold medal; Sanjeev Kumar and Sarada win the 'Bharat' and 'Urvashi' awards respectively, both for the second time.
— Vijay Amrithraj wins the men's singles title in the first Volvo International Tennis Tournament at Bretton Woods, New Hampshire.

AUGUST

4 A twin-crew 3,500-tonne sea-going hopper dredger, *HSD Cochin*, built by the Garden Reach Workshops, Calcutta, launched.
11 Maulana Asad Madani elected President of Jamiat-Ulema-i-Hind.
— Dahyabhai Patel, Swatantra MP, dies in Bombay.
12 Dayanand Balkrishna Bandodkar, Chief Minister of Goa, Daman and Diu, passes away in Panaji.
13 Smt Shashikala Kakodkar sworn in as the new Chief Minister of Goa, Daman and Diu.
14 C.P. Srivastava, Chairman of the Shipping Corporation of India, becomes the first Asian to be designated as the Secretary-General of the Inter-Governmental Maritime Consultative Organisation (IMCO), a UN agency.
18 Indo-Pak emissary level talks on the humanitarian problem arising from the 1971 war resumed in New Delhi.
— The first glass epoxy plant in the country commissioned at Poona.
27 India and Sri Lanka sign an agreement in New Delhi providing for a credit of Rs 5 crores to Sri Lanka for the purchase of goods from India.
— India and Bangladesh sign a five-year agreement in Dacca on co-operation in peaceful uses of atomic energy and scientific research.
28 The State-owned Radio and Electrical Manufacturing Company, Bangalore, develops for the first time in India, portable X-ray equipment.
— India and Pakistan sign an agreement in New Delhi to resolve the humanitarian problem arising from the 1971 war.

SEPTEMBER

1 Country's first training centre for Urdu typewriting inaugurated in New Delhi.
4 Prime Minister Indira Gandhi arrives in Algiers to take part in the non-aligned summit conference.
— The Reserve Bank of India raises the value limit of personal jewellery that a person can take out of India, except to Pakistan, from Rs 2,000 to Rs 5,000.

5 Sikkil Ramaswamy Pillai, noted exponent of Bharata Natyam, dies.
— L.K. Jha, Governor of Jammu and Kashmir, elected Chairman of the UN panel on the political and other ramifications of multi-national corporations in foreign countries.
6 Foundation-stone of the oil jetty at Mangalore harbour laid.
11 The Cuban Prime Minister, Dr Fidel Castro, arrives in New Delhi for a brief stop-over.
14 1973 Kalinga Prize for popularisation of sciences awarded to British journalist and writer, Nigel Calder, and an American scientist, Dr Philip H. Abelson.
16 Bihar, Madhya Pradesh and Uttar Pradesh sign in New Delhi an agreement on the sharing of waters from the Rs 120-crore Bansagar project in Madhya Pradesh.
19 The first formal trade agreement between India and Turkey signed in New Delhi.
— Foundation-stone of Pamban road bridge in Tamil Nadu, which will link the Mainland with Rameswaram island, laid.
— The three-way exchange of Pakistan POWs and civilian internees in India, Bangladesh nationals in Pakistan and Pakistani nationals in Bangladesh begins under the Delhi agreement of 28 August.
20 *INS Gaj*, the indigenously built ocean-going tug, commissioned at Calcutta.
21 The Shipping Corporation of India receives 'Visvesvaraya', the first of the three tankers being built for India by the Soviet Union.
23 Puthezhath Raman Menon, an eminent Malayalam writer and former President of the Kerala Sahitya Akademi, dies.
28 Biologists at the Cancer Institute, Adyar, Madras, isolate and grow human cancer cells in artificial culture which will help in finding the drug that will be most effective against a particular cancer.
29 Prime Minister Indira Gandhi inaugurates India's fourth television centre at Amritsar.

OCTOBER 1 Papanasam Sivan, Tamil composer and musician, dies.
2 Foundation-stone of the country's biggest refinery near Mathura laid.
— TV relay centre at Poona commissioned.
— Guru Gopala Panicker, Kerala's oldest Kathakali veteran, dies.
— Rs 16-lakh lay-by jetty at the Visakhapatnam port inaugurated.
3 Sadhana Bose, famed Bengali actress of the pre-independence era dies.
— President V.V. Giri arrives in Bucharest on a state visit to Rumania.
6 President V.V. Giri arrives in Prague on a state visit to Czechoslovakia.
— India recognises the Republic of Guinea-Bissau.
8 Central government announces decision on the recommendations of the Third Pay Commission in regard to Class II, III and IV employees.
11 A kerosene pump, set up by the Indian Oil Corporation, the first of its kind in the country, inaugurated in New Delhi.
— Barkatullah Khan, Rajasthan's Chief Minister, dies.
12 King Birendra of Nepal arrives in New Delhi on an eight-day official visit to India.
13 A centrally-sponsored project, first of its kind in the country to reclaim 1.25 lakh hectares of saline and alkaline land, launched in Karnal district of Haryana.
14 Dr Tara Chand, noted historian, dies.
15 For the first time in India, a concrete crib weighing 1,660 tonnes for an ore-berth of the outer harbour project, launched into water at Visakhapatnam port.

— First 120 mw unit of Rs 90-crore Santaldih thermal power station in West Bengal commissioned.

— A ten-member expedition of the Himalayan Association, Calcutta, for the first time scales the 6,203-metre Uja Tirche summit in the Garhwal Himalayas.

16 Foundation-stone of naval boys' training establishment near Chilka Lake in Orissa laid.

17 Uranium deposits discovered at a number of places in Bihar and Meghalaya.

— Rs 2.60-crore tribal development project for all round uplift of 1.2 lakh Jungs and Bhuejans in Keonjhar district of Orissa launched.

18 The second coke-oven battery of the Bokaro steel plant commissioned.

21 Vijay Amrithraj wins the singles title in the first India Open Grand Prix Tennis Championship in New Delhi defeating Mal Anderson of Australia.

22 Prime Minister Indira Gandhi lays the foundation-stone of Rs 20-crore switching equipment factory of ITI at Rae Bareli.

— Leaders of Andhra and Telengana regions of Andhra Pradesh sign an agreement accepting the six-point formula for the balanced development of the state as a whole.

23 India and the Soviet Union sign in New Delhi a protocol for the exchange of television and radio programmes.

— Prof P. Sambamoorthy, eminent musicologist, passes away.

— Smt Nellie Sengupta, veteran freedom fighter and former President of the Indian National Congress, dies.

24 India and Afghanistan sign in Kabul an agreement in the field of archaeology.

25 Harideo Joshi becomes new Chief Minister of Rajasthan.

26 Lok Sabha Speaker Gurdial Singh Dhillon elected President of the Council of the Inter-Parliamentary Union of the World at the Geneva session of the Council.

28 The Sixth Finance Commission, headed by K. Brahmananda Reddy, presents its report to the President.

— Prime Minister Indira Gandhi inaugurates the third Indian Institute of Management at Bangalore.

29 External Affairs Minister Swaran Singh arrives in Kabul on an official visit to Afghanistan.

— Foundation-stone of the Supa Dam, a major component of the giant Kalinadi hydel project in Karnataka, laid.

— High pressure petroleum gas accumulation found in an area north-west of Tengakhat in the Naharkatiya region of Assam.

NOVEMBER 1 The new names of the State of Mysore and the Union Territory of Laccadive, Minicoy and Amindivi Islands, *i.e.*, Karnataka and Lakshadweep respectively, come into force.

2 India's first experimental electronic telephone exchange starts functioning at the tele-communication research centre in New Delhi.

3 Prices of all refined petroleum products, except naphtha, increased by the union government following the continuing and sharp increases in the prices of imported crude.

4 Mizo Union, the oldest political party in Mizoram, decides to merge with the Congress Party.

7 India and the European Economic Community initial in Brussels sectoral agreements on jute and coir products which will enable India to export these products to the enlarged Common Market under reduced tariffs.

8 New Uttar Pradesh ministry headed by H.N. Bahuguna takes office.

10 Sheikh Mohammed Abdullah says Kashmir's accession to India is final and Pakistan Prime Minister Mr Bhutto's utterances on Kashmir 'cannot change the present status of Jammu and Kashmir'.

11 Diwan Chaman Lal, parliamentarian, diplomat, trade union leader and writer, dies.

14 India International Philatelic Exhibition opens in New Delhi.

18 Holy Mother of Sri Aurobindo Ashram, Pondicherry, passes away.

19 Renowned Urdu poet, Salam Machlishahri, dies in New Delhi.

21 Seth Govind Das, MP, felicitated on completing 50 years as a parliamentarian, an unprecedented record, in the Central Hall of Parliament.

22 India and South Korea sign in Seoul an agreement on trade and economic co-operation which provides for most favoured nation treatment on a reciprocal basis.

26 Leonid Brezhnev, General Secretary of the Central Committee of the Communist Party of the Soviet Union, arrives in New Delhi on a five-day official visit to India.

— The two Akali Dals in Punjab, the Sant group and the Gurnam Singh group, merge.

29 India and the Soviet Union sign in New Delhi five documents, including a 15-year agreement on economic collaboration, setting out long-term political, economic and counsellor relations between the two countries.

30 The Shipping Corporation of India acquires the first of the four sophisticated tankers of 87,500 DWT each from a Japanese firm.

DECEMBER 1 The 1972 Bharatiya Jnanpith Award presented to the noted Hindi poet Ramdhari Singh 'Dinkar' for his poetic drama 'Urvashi'.

2 Vipin Behari Prayalanker, a noted revolutionary, dies.

— Construction work begins on the new broad gauge Shahdara-Saharanpur rail link at Khekra in Meerut district.

3 Gustav Husak, General Secretary of the Czechoslovak Communist Party, arrives in New Delhi on a seven-day official visit to India.

4 Shanker Keshav Kanetkar, renowned Marathi poet, popularly known as 'Kavi Girish', dies.

5 President V.V. Giri inaugurates the Electronics Exhibition 1973 in New Delhi on the occasion of the seventh Asia Electronics Conference and the fourth meeting of the Asia Electronics Union held for the first time in India.

9 Iranian Foreign Minister Abbas Ali Khalatbary arrives in New Delhi on a week's visit to India.

10 New Andhra Pradesh ministry headed by Jalagam Vengal Rao takes office.

— India establishes full diplomatic relations at ambassadorial level with the Republic of Korea and the Democratic People's Republic of Korea.

— North Zone wins the 'Duleep Trophy' for cricket for the first time since its inception 12 years ago.

11 T.N. Ramachandran, archaeologist and scholar, dies in Madras.

— S.M. Moinul Huq, Chairman of the Asian Games Rules Committee and Vice-President of the Indian Olympic Association, dies in Patna.

15 Piloo Mody re-elected President of the Swatantra Party.

17 India and the European Economic Community sign in Brussels a five-year agreement, the Community's first ever commercial co-operation agreement with a non-associate state, providing, among other things, for a high-powered joint commission to sort out their trade and economic problems from time to time.

18 CPI(M) leader Muzaffar Ahmed passes away.

23 Foundation-stone of Rs 58-crore dam project at Rengali, 96 km from Dhenkanal in Orissa, laid.

24 E.V. Ramaswamy Naicker, founder-leader of the Dravida Kazhagam, dies at Vellore in Tamil Nadu.

— Krishna Waters Dispute Tribunal submits report to the central government on the distribution of waters between Maharashtra, Karnataka and Andhra Pradesh.

26 The sulphur dioxide-oleum plant of the Gujarat State Fertilizer Corporation, the first of its kind in the country, commissioned at Fertilizernagar, near Vadodara.

27 New Zealand Premier Norman Kirk arrives in New Delhi on a six-day official visit to India.

— Dr Narasimha Pai, world renowned psychiatrist, passes away.

30 Pondicherry ministry headed by Farook Maricar resigns.

1974
JANUARY

1 Keel of an estuarine dredger, the biggest ever to be built in India, laid at the Garden Reach Workshops in Calcutta.

— Prime Ministers of India and New Zealand, in a joint statement issued in New Delhi, reaffirm their support for the concept of the Indian Ocean as a 'zone of peace'.

— Direct tele-communication link between Bombay and Colombo inaugurated.

— Another rock-cut cave discovered at the world-famous cave temples at Ellora in Maharashtra.

3 Pondicherry placed under President's rule; Assembly dissolved following resignation of the ministry on 30 December.

4 G.D. Naidu, an industrial scientist, dies.

6 Vijay Amrithraj retains men's singles title in the National Lawn Tennis Championship held in Poona.

8 Prime Minister Indira Gandhi inaugurates the Ghaziabad unit of Bharat Electronics Ltd. for the production of electronics equipment for defence forces.

— Foundation-stone of Rs 15-crore transformer factory of the Bharat Heavy Electricals Ltd. laid near Jhansi.

13 Foundation-stone of the country's fourth atomic power plant laid at Narora in Uttar Pradesh.

15 Foundation-stone of Agricultural University at Faizabad in Uttar Pradesh laid.

16 Foundation-stone of the fertilizer plant of the Indian Farmers' Fertilizer Co-operative Ltd. laid at Phulpur near Allahabad.

17 The President receives the credentials of the first Ambassador of the Republic of Gabon to India.

21 Deposits of about 14 crore tonnes of iron ore and valuable atomic metals found at Tiruvannamalai and Sevathur in Tamil Nadu.

22 Smt Sirimavo Bandaranaike, the Prime Minister of Sri Lanka, arrives in New Delhi on an official visit.

— Harikrishna 'Premi', a noted Hindi playwright, poet, journalist and freedom fighter, dies.

25 President Josip Broz Tito of Yugoslavia receives the 1971 Jawaharlal Nehru Award for the Promotion of Peace and International Understanding in New Delhi.

27 President V.V. Giri dedicates to the nation Nehru Memorial Library at Teen Murti House, New Delhi.

29 Prime Ministers of India and Sri Lanka, in a joint communique, reach agreement on the future of 1,50,000 persons of Indian origin in Sri Lanka left uncovered by the 1964 agreement.

30 Work on Rs 42-crore Western Kosi Canal at Khojpur in Madhubani district of Bihar inaugurated.

31 The first steel smelting shop at Bokaro, designed to produce 17 lakh tonnes of crude steel annually, commissioned.

— Union cabinet approves the setting up of the first nickel-*cum*-cobalt plant at Sukinda in Orissa.

— The Geological Survey of India discovers the existence of sedimentary barytes, first ever in India, at Mangampeta in Cuddapah district of Andhra Pradesh.

FEBRUARY 2 The Vikram Sarabhai Space Centre of the Indian Space Research Organisation builds a digital plotter which can draw sketches, write any language and even cast one's horoscope in a jiffy guided by a computer.

4 Satyendranath Bose, national professor and world renowned scientist, dies in Calcutta.

— External Affairs Minister Swaran Singh arrives in Thimpu on a three-day official visit to Bhutan.

5 An agreement for Indian technical assistance for setting up a fertilizer plant in Iraq signed in New Delhi.

6 India and the Federal Republic of Germany sign in Bombay an agreement in the field of nuclear power generation.

8 North Zone wins the 'Vizzy' Trophy, for the first time since its inception in 1966-67, with a ten-wicket victory over West Zone in New Delhi.

10 Pahari Sanyal, veteran film artiste and musician, dies in Calcutta.

11 K.K. Karmarkar, Assistant Secretary of the Board of Control for Cricket in India, honoured by MCC with honorary life membership.

— Gantasala Venkateswara Rao, Telugu playback singer, passes away.

12 Polling in the third General Election in Nagaland begins.

13 India and Kuwait sign in Kuwait an agreement for increased bilateral trade and joint development ventures.

14 A full bench of the Punjab and Haryana High Court declares as unconstitutional certain provisions of the Punjab Land Reforms Act, 1972 relating to the concept of family ceiling.

— Ustad Amir Khan, renowned Hindustani vocalist, and Dr S.N. Ratanjankar, well-known musician and musicologist, pass away.

15 Third national educational survey gets under way.

18 The Jawaharlal Nehru Award for the Promotion of Peace and International Understanding for 1973 awarded to President Nyerere of Tanzania.

— India and the USA sign in New Delhi an agreement regarding the disposal of American held rupees in India arising out of PL-480 and other aid programmes.

19 Oil struck at a depth of 962 metres in the first well drilled by 'Sagar Samrat' in the Bombay High structure.

— Polling in the mid-term election to the Manipur Assembly begins.

20 Results of the third General Election to the 60-member Nagaland Assembly declared; United Democratic Front wins 25 seats, Nagaland Nationalist Organisation 23 and Independents 12.

21 Prince Don Juan Carlos of Spain arrives in New Delhi on a five-day state visit to India.

— Reserves of about 5 crore tonnes of wollastanite and calcite discovered in Sirohi district of Rajasthan.

22 Polling to elect the 147-member Orissa Assembly begins.

24 Voters go to the polls in the sixth General Election in Uttar Pradesh.

— Polling in the third General Election to the 30-member Assembly in Pondicherry held.

— President Anwar Sadat of Egypt arrives in New Delhi on a day's visit.

25 An Authors' Guild of India, with Justice G.D. Khosla as president, formed in New Delhi.

26 United Democratic Front ministry headed by Tsukru Vizol sworn in at Kohima, Nagaland.

27 Election results in the third General Election in Pondicherry declared; ADMK wins 12 seats, Congress 7, Congress (O) 5, DMK 2, CPI 2, CPI(M) 1 and Independent 1.

— Results to the 60-member Manipur Assembly declared; MPP wins 20 seats, MHU 12, Congress 12, CPI 6, SP 2, KNA 2 and Independents 5.

MARCH 1 Election results to the 425-member UP Assembly declared; Congress Party secures absolute majority.

— Orissa Assembly election results declared; Congress wins 69 seats, Utkal Congress 33, Swatantra 21, CPI 7, CPI(M) 3, SSP 2, SPI 2, Jana Congress 1 and Independents 8.

3 Foundation-stone of the naval science and technical laboratory to develop modern naval weaponry laid at Visakhapatnam.

4 Bulgarian Prime Minister Stanko Todorov arrives in New Delhi on a week's visit.

— A two-member United Legislative Party ministry headed by Mohammed Alimuddin sworn in at Imphal, Manipur.

— Parliament approves the Presidential and Vice-Presidential Elections (Amendment) Bill, 1974 which seeks to check frivolous contests to the offices of the President and Vice-President.

5 An 11-member Congress ministry headed by H.N. Bahuguna sworn in at Lucknow.

6 A 17-member ministry headed by Smt Nandini Satpathy sworn in at Bhubaneswar.

— A four-member ADMK ministry headed by S. Ramaswamy sworn in at Pondicherry.

— India and Bulgaria sign in New Delhi agreements which, among other things, provide for the abolition of visas for the nationals of the two countries.

7 T.T. Krishnamachari, former union Finance Minister, dies.

8 Ahmed Zaki, Prime Minister of Maldives, arrives in New Delhi on a visit to India.

9 Fourth Leander class frigate for the Indian Navy, *INS Dunagiri*, built at the Mazagon Dock, launched.

— Oil struck at Charali near the Rudrasagar oilfield in Assam.

— Guru Amudon Sharma, exponent of Manipuri dance, passes away.

13 Tele-communication link between India and Maldives established.

— Mohammed Salah Mutie, Foreign Minister of the People's Democratic Republic of Yemen, arrives in New Delhi.

14 India and Maldives, in a joint communique issued in New Delhi, express support for the concept of the Indian Ocean as a 'zone of peace'.

— Central government acquires 74 per cent interest in Esso's refining and lube production business.

15 Gujarat Legislative Assembly dissolved following large-scale resignations of the legislators.

— India and Poland sign in New Delhi a five-year agreement on co-operation in science and technology.

— Uranium found in the rock formations in the Sonrai area of Jhansi district, Uttar Pradesh.

— AIR and Deutsche Welle of West Germany sign in New Delhi a three year protocol for co-operation in the field of radio and television.

— Dr M.D. Pathak, a young Indian entomologist working at the International Rice Research Institute, Philippines, receives in New Delhi the Borlaug award for outstanding service to agriculture.

17 India's first Lion Safari Park declared open at the Nehru Zoological Park, Hyderabad.

— Lunar crater 'Bassel' named after the late Dr Vikram Sarabhai at the Sydney meeting of the International Astronomical Union.

18 Oil struck in the third layer in the Bombay High structure at a depth of 1,600 metres.

— Buddhadev Bose, eminent Bengali litterateur, dies.

— India and the People's Democratic Republic of Yemen, in a joint communique issued in New Delhi, express their grave concern at the US-UK decision to expand base facilities on the Indian Ocean island of Diego Garcia.

22 Acharya Jugal Keshore, a former Education Minister of Uttar Pradesh and prominent Congress (O) leader, dies.

— Work on the Siwalik national fossil park, described as the world's first, inaugurated.

23 L.K. Advani re-elected President of Bharatiya Jana Sangh.

— Kathakali exponent Guru Mambuzha Madhava Panicker passes away.

— Telugu becomes the official language at taluk level in Andhra Pradesh.

— Agreement for India building the Chukha hydro-electric project in Bhutan signed in New Delhi.

25 Iraqi Vice-President Saddam Hussein arrives in New Delhi on an official visit.

26 Bharat Heavy Electricals, Bhopal, develops for the first time in India an electro-hydraulic governor for hydro-electric power stations.

27 The second bucket dredger 'Kichodhara' being built at Mazagon Dock, Bombay, launched.

— ADMK-CPI coalition ministry in Pondicherry resigns.

— Karnataka wins Ranji Trophy for the first time by defeating Rajasthan in the final played at Jaipur.

28 President's rule proclaimed in Pondicherry; Assembly dissolved.

— India and Iraq sign in New Delhi an agreement on the setting up of a permanent joint commission on economic and technical co-operation.

29 Union government accepts with marginal adjustments the Third Pay Commission's recommendations for Class I and All-India services.

30 The Electronics Corporation of India develops a computer known as TDC-16 which can make 4,00,000 additions and subtractions a second.

APRIL

1 The Reserve Bank of India increases the rates of interest on savings accounts and fixed deposits of scheduled banks.

— Prime Minister Indira Gandhi lays the foundation-stone of Rs 250-crore fertilizer project at Paradeep.

5 The first-ever tripartite meeting among India, Pakistan and Bangladesh as envisaged under the Delhi Agreement, begins in New Delhi.

9 Foreign Ministers of India, Pakistan and Bangladesh sign in New Delhi an accord to clear the way for the normalisation of relations among the three countries and the establishment of a durable peace in the region.

— India and Pakistan conclude a bilateral agreement listing out priorities to be given for restoration of normal relations between the two countries snapped in the wake of the 1971 war.

11 Prime Minister Sir S. Ramgoolam of Mauritius arrives in New Delhi on a three-day visit.

14 Kumbh Mela held at Hardwar.

15 Dr A. Lakshmanaswamy Mudaliar, former Vice-Chancellor of Madras University, dies in Madras.

20 The first oil well on the Bombay High off-shore oil project completed.

— President Giri inaugurates at Itanagar the new capital township of Arunachal Pradesh.

23 President Ne Win of Burma arrives in New Delhi on an official visit.

— The Supreme Court strikes down the central government's order implementing the recommendations of the Second Wage Board for Working Journalists *vis-a-vis* the Press Trust of India.

24 Ramdhari Singh 'Dinkar', leading Hindi poet, passes away.

26 The Supreme Court rules that sections of the Gujarat University Act, 1949, as amended in 1973, which seek to regulate and restrict certain rights of managements of colleges affiliated to the University, do not apply to institutions established and administered by linguistic and religious minorities.

— India and Burma, in a joint communique issued in New Delhi, call upon the big powers to refrain from any action that might militate against the objectives of keeping the Indian Ocean a 'zone of peace'.

— Beypore harbour in Kerala commissioned.

27 India and UNDP sign in New Delhi a four-year agreement for establishing, for the first time in India, a sponge-iron plant at Kothagudem in Andhra Pradesh.

28 The Indian Space Research Organisation announces the successful 'mating' of the 300-kg mechanical prototype of the first Indian Scientific Satellite Project (ISSP) with a rocket in the Soviet Union in the previous week.

— G.L. Mehta, former Indian Ambassador to the United States, dies.

30 India completes repatriation of about 93,000 Pakistani POWs and civilian internees who surrendered to the joint Indo-Bangladesh command in Bangladesh on 16 December 1971.

MAY 2 Frank Moraes, eminent journalist, dies in London.

5 Mangalore declared a major port.

8 Railwaymen go on strike demanding, among other things, bonus.

12 Sheikh Mujibur Rahman, Prime Minister of Bangladesh, arrives in New Delhi on a five-day official visit.

14 The President issues an order extending by another five years—up to 14 May 1979—certain special constitutional privileges enjoyed by Jammu and Kashmir.

16 India and Bangladesh sign in New Delhi agreements on border demarcation, economic co-operation and a joint commission on jute.

18 India successfully carries out an underground nuclear experiment in the Rajasthan desert.

— President Leopold Sedar Senghor of Senegal arrives in New Delhi on a nine-day visit.

19 Dr A.J. Faridi, President of the All-India Muslim Majlis, dies in Lucknow.

20 The President assents to the Constitution (Thirty-third Amendment) Bill, 1974 which seeks to check forced resignation of legislators.

— The Sahitya Akademi confers its first honorary fellowship on a scholar of a foreign country on President Senghor of Senegal.

26 India and Senegal, in a joint communique issued in New Delhi, reaffirm their support to keep the Indian Ocean as a 'zone of peace'.

27 Sudhir Khastagir, noted sculptor, dies at Santiniketan.

28 Railwaymen withdraw their strike.

— The union government set up a commission headed by Dr D.S.

Kothari to review the present system of recruitment to the IAS and other central services.

JUNE

1 The Vikram Sarabhai Space Centre successfully flight-tests RH-100 (Rohini-100) rockets employing helical welding technology, developed for the first time in the country at the Centre.

5 The Supreme Court, in response to a reference made to it by the President under Article 143(1) of the Constitution, expresses the opinion that the Presidential poll should be held notwithstanding the dissolution of the Gujarat Assembly and that the election must be held before the expiry of the five-year term of President V.V. Giri.

12 Large deposits of lead, zinc and copper found at Deri in Sirohi district of Rajasthan.

15 President V.V. Giri arrives in Dacca on a five-day state visit to Bangladesh.

— Shaikh Rashid Bin Saeed Al-Maktoum, Vice-President of the United Arab Emirates, arrives in New Delhi on a seven-day visit to India.

17 Yadavendra Singh, India's Ambassador to the Netherlands and former Maharaja of Patiala, dies at The Hague.

18 Seth Govind Das, Hindi litterateur and the oldest parliamentarian in the country, passes away in Bombay.

22 An ordinance amending the Essential Commodities Act, 1955 to provide for more deterrent punishment for blackmarketing, hoarding and profiteering, promulgated.

24 A protocol on Indo-Soviet co-operation for the construction of the first 17.5 km long line of the Calcutta tube railway (METRO) from Dum Dum railway station to Tollygunj signed in New Delhi.

26 India's biggest thermal power station at Koradi near Nagpur starts generating power.

28 India and Sri Lanka sign a comprehensive agreement demarcating the boundary between the two countries in the Palk Bay, under which the uninhabited island of Kachchativu becomes part of the territory of Sri Lanka.

JULY

1 The Constitution (Thirty-second Amendment) Act, 1973, incorporating the six-point formula in Andhra Pradesh, comes into force.

6 The President issues an ordinance—the Companies (Temporary Restrictions on Dividends) Ordinance 1974—limiting after tax profits distributed by companies.

8 Manipur coalition ministry headed by Mohammed Alimuddin resigns.

— India and Sri Lanka exchange letters of assent to the boundary agreement of 28 June on Kachchativu island.

9 First of the four units of Gujarat's first hydro-electric project at Ukai, near Vadodara, commissioned.

10 An eight-member coalition ministry headed by Y. Shaiza of the Progressive Democratic Front sworn in at Imphal.

— The Daryabad branch of Rs 200-crore Sarda Sahayak irrigation project in Uttar Pradesh commissioned.

12 New Tuticorin declared the tenth major port of the country.

14 Bauxite deposits estimated at 1.05 crore tonnes, and said to be the second biggest deposit in the world, discovered in Koraput, Kalahandi and Sambalpur districts of Orissa.

17 The President promulgates the Compulsory Deposit Scheme (Income-tax Payers) Ordinance, 1974 providing for compulsory deposits on a graded scale by all income-tax payers with a total annual income, including both non-agricultural and agricultural, of Rs 15,000 and above.

18 India and UN Fund for Population Activities (UNFPA) sign in New Delhi a five-year agreement providing for UNFPA grant of Rs 30 crores for India's family planning programme.

19 New helicopter division of the Hindustan Aeronautics Ltd., Bangalore, inaugurated.

— Ashes of 'Shaheed' Udham Singh, who shot Sir Michael O'Dwyer in London to avenge Jalianwala Bagh massacre in 1919, brought to Delhi from London.

20 The Nuclear Research Laboratory at the Indian Agricultural Research Institute, New Delhi, formally handed over to the Government of India by the United Nations Development Agency.

22 The Reserve Bank of India raises the bank rate from seven to nine per cent.

23 Hare Krishna Konar, General Secretary of the All-India Kisan Sabha and member of CPI (M) Central Committee, dies in Calcutta.

25 A no-confidence motion against the union Council of Ministers defeated by 294 votes to 61.

26 India and Bhutan sign in Thimpu an agreement under which India will set up a cement factory at Pagli, Bhutan.

27 India and Bangladesh sign an agreement in New Delhi under which India will supply 500 wagons to Bangladesh.

31 Union Finance Minister presents supplementary budget to raise Rs 232 crores from new levies in a full year and a yield of Rs 136 crores during the rest of 1974-75.

— M.C. Setalvad, a former Attorney-General for India, dies in Bombay.

AUGUST

5 A contract for a sponge steel complex at Dubai to be built by India signed at Ranchi with the Government of United Arab Emirates.

8 India and Indonesia sign in Jakarta a continental shelf agreement delimiting the boundary between them with a line cutting half way through the 144 km seaway lying between India's Nicobar Islands and Indonesia's northern-most We Island.

9 Union Minister of Petroleum and Chemicals announces in Parliament that oil has been struck at a well at Goleki in Assam which can produce 150 tonnes a day against the current production of 20 tonnes a day in other wells.

20 Fakhruddin Ali Ahmed declared elected as the fifth President of the Republic, defeating his main rival Tridib Kumar Choudhury.

— The Lok Sabha passes the second Finance Bill containing the supplementary taxation proposals.

21 Supplementary railway demands presented to the Lok Sabha.

24 Fakhruddin Ali Ahmed sworn in as the new President of India.

26 The Lok Sabha passes unanimously the Constitution (Thirty-fourth Amendment) Bill seeking to insulate states' land ceiling and land tenure laws against litigation.

27 Election of the new Vice-President held; B.D. Jatti declared elected defeating his nearest rival N.E. Horo.

— Lok Sabha passes the Additional Emoluments (Compulsory Deposit) Bill which provides for compulsory deposit of the whole of additional wages earned by workers for a period of one year, and one-half of additional dearness allowance for a two year period.

29 Seven parties—BKD, SSP, Swatantra, Utkal Congress, Rashtriya Loktantrik Dal, Kisan Mazdoor Party of Haryana and Punjab Khetibari Zamindar Union—combine to form a new party, Bharatiya Lok Dal (BLD), with Charan Singh as chairman.

31 M.S. Subbulakshmi, noted singer, receives in Manila the 1974 Ramon Magsaysay Award for public service.

SEPTEMBER 1 Prohibition re-introduced in Tamil Nadu.

3 Foundation-stone of Rs 8-crore scooter factory, a Bihar Government undertaking, laid at Futwah, near Patna.

— Report of the Khosla Inquiry Commission on Netaji Subhas Chandra Bose presented to Parliament.

5 Dr Abinash Chandra Bose, noted educationist, dies in New Delhi.

6 Vasant Kulkarni, Secretary of the All-India Hind Mazdoor Sabha, dies in Bombay.

7 Parliament adopts a Constitution Amendment Bill, extending to Sikkim the status of 'associate state' of the Indian union.

8 India and Guinea-Bissau decide to establish diplomatic relations at embassy level.

9 Parliament approves the Oil Industry (Development) Bill, 1974 which seeks to set up an oil development fund by imposing a cess by way of excise duty on crude and natural gas.

— Parliament adopts Payment of Bonus (Amendment) Bill, 1974 providing for a payment of minimum bonus of 8.33 per cent in respect of the accounting year 1973 pending receipt of the final report of the Bonus Review Committee.

14 India and Pakistan sign in Islamabad agreements for the resumption of postal, telecommunication and travel facilities suspended after the 1965 conflict and totally snapped after the 1971 war; two countries also sign a protocol on the exchange of pilgrims to shrines.

16 Subodh Banerjee, leader of the Socialist Union Centre, passes away.

17 India finishes seventh with four gold, twelve silver and twelve bronze medals at the Seventh Asian Games at Teheran.

18 Foundation-stone of a concrete dam for the 690 mw Salal hydel power project in Jammu and Kashmir laid.

20 'Paraplegic Home', the first of its kind in Asia for total rehabilitation of critically disabled Jawans, opened at Kirkee near Poona.

— An electronics testing and developing centre to test commercial electronics products inaugurated at Vadodara.

22 India qualifies for the final round of the Davis Cup Tennis Championship, for a second time, beating USSR 3-1 in the inter-zone semi-final match at Poona.

— Soumyendra Nath Tagore, a veteran revolutionary and founder of the Revolutionary Communist Party of India, passes away.

23 Jayachamarajendra Wadiyar, former Maharaja of Mysore, dies in Bangalore.

— India and Rumania sign in Bucharest a five-year protocol under which India will export 1.3 crore tonnes of iron ore and import, among other things, 14 drilling rigs.

— India's first NCC air squadron for girls inaugurated at Banasthali in Rajasthan.

27 The Bonus Review Committee, constituted in April 1972 recommends 8.33 per cent and 20 per cent as minimum and maximum bonus respectively.

28 President's rule extended by another six months in Pondicherry.

— An agreement on co-operation between the Planning Commissions of India and the German Democratic Republic signed in Berlin.

— India and Tanzania sign an agreement in New Delhi under which India will provide training facilities for Tanzanian technicians, short-term services of Indian consultants in specific fields and help in setting up industrial estates.

OCTOBER 2 The Shah and Shahbanou of Iran arrive in New Delhi on a state visit.
3 The Supreme Court sets aside the election of Amar Nath Chawla to Lok Sabha from Delhi-Sadar constituency.
4 In a joint ommunique issued in New Delhi, India and Iran call upon big powers to extend their co-operation in establishing the Indian Ocean as a 'zone of peace'.
— The President gives away the 1973 National Awards for Films in New Delhi.
6 V. K. Krishna Menon, former Defence Minister, passes away in New Delhi.
10 The union Council of Ministers reshuffled.
11 India and Bulgaria sign in New Delhi an agreement for co-operation in the fields of science and technology.
12 President Bongo of the Republic of Gabon arrives in New Delhi on a state visit.
— The first unit of the thermal power plant at Bhatinda in Punjab commissioned.
15 Indo-Pak postal and telecommunication links restored.
— In a joint communique issued at the end of Gabon President's visit to India, the two countries stress the importance of harnessing nuclear energy for economic development and human welfare.
— India lifts the 14-year-old ban on travel to Portugal.
16 Chembai Vaidyanatha Bhagavathar, eminent Karnatak musician, dies at Ottapalam, Kerala.
19 The President issues an ordinance to provide that election expenses incurred by a political party or a person other than a candidate shall not be deemed as expenditure incurred by the candidate on his election.
— D.K. Borooah elected President of the Congress Party.
— 'Nawab' T.S. Rajamanickam, well-known Tamil stage actor, dies at Thanjavur.
20 President Fakhruddin Ali Ahmed inaugurates the XXVI International Congress of Physiological Scientists in New Delhi.
— India's widest flyover inaugurated in New Delhi.
25 India to supply 500 buses to Zaire under an agreement signed between the two countries in Kinshasha.
27 Dr Henry Kissinger, US Secretary of State, arrives in New Delhi.
— Mridula Sarabhai, prominent social worker, dies in New Delhi.
28 India and the USA sign in New Delhi an agreement for establishing a joint commission on economic, commercial, technological, educational and cultural co-operation between the two countries.
29 All India Lawn Tennis Association announces India's decision not to play South Africa in the Davis Cup final because of the latter's apartheid policy.
30 Begum Akhtar, 'ghazal queen', passes away in Ahmadabad.

NOVEMBER 2 Third Asian Buddhist Conference for Peace opens in New Delhi.
4 Natasurya Ahindra Choudhury, doyen of Bengali theatre and film, passes away in Calcutta.
8 Dr D.R. Bendre, eminent Kannada poet, and Gopinath Mohanty, the well-known Oriya novelist, jointly receive the 1973 Bharatiya Jnanpith Award.
— Rs 64-crore ammonia urea complex of the Indian Farmers' Fertilizer Co-operative Ltd. commissioned at Kalol in Gujarat.

9 World Congress on Asthma, Bronchitis and Allied Conditions opens in New Delhi.

10 The Khetri copper smelter, in the public sector, starts functioning in Jhunjhunun district of Rajasthan.

12 India and Bangladesh sign an agreement in New Delhi under which India will provide an emergency credit of Rs 10 crores to Bangladesh to meet the situation arising out of floods.

15 Government of India announces revised pay scales of commissioned officers of the Armed Forces.

16 French statesman, writer and artist, Andre Malraux, receives the 1972 Jawaharlal Nehru Award for Promotion of Peace and International Understanding.

18 Indo-Pak talks on the resumption of overflights and air links, as envisaged in the Simla Agreement of 2 June 1972, open in Rawalpindi.

— India and Hungary sign in New Delhi a memorandum of understanding under which India will supply a complete coke oven plant to Hungary.

— India and Pakistan establish telex link between the two countries.

20 The Rs 12.22-crore 'double-decker' rail-and-road bridge across the Godavari on the Calcutta-Madras national highway opened to traffic.

21 Hungarian Prime Minister Jeno Fock arrives in New Delhi on a week's official visit.

22 Ram Sevak Yadav, Deputy Opposition Leader in the Uttar Pradesh Vidhan Sabha, passes away in New Delhi.

— Indo-Pakistan talks on resumption of overflights and air links between the two countries adjourned; two sides agree to resume them in New Delhi on a mutually convenient date.

23 World Conference on Religions, sponsored by the Fellowship of Religions, opens in New Delhi.

— *INS Himgiri*, a Leander class frigate built by the State-owned Mazagon Dock for the Indian Navy, commissioned at Bombay.

25 India and the Federal Republic of Germany sign in New Delhi an agreement on co-operation in the field of science.

26 President Gaafar Mohammed Nimeri of Sudan arrives in New Delhi on a state visit.

— Official level talks between India and Pakistan on the resumption of trade between the two countries begin in New Delhi.

— India and Hungary, in a joint communique, call for consolidation of peace and stability in Asia through common efforts by all the states of this largest and most populated area of the world.

28 India and the Sudan sign in New Delhi two agreements which provide a long-term basis for co-operation between the two countries in the economic, scientific, technical and cultural spheres.

29 Prime Minister Horst Sindermann of the German Democratic Republic arrives in New Delhi on an official visit.

30 India and Pakistan sign in New Delhi a protocol for the resumption of trade between the two countries.

DECEMBER 1 The Adaptive Rice Research Centre at Baronda near Raipur in Madhya Pradesh develops a new strain of paddy, said to be the longest variety in the world.

— Smt Sucheta Kripalani, former Chief Minister of Uttar Pradesh, passes away in New Delhi.

— India and the Sudan, in a joint communique issued in New Delhi, stress the importance of making the Indian Ocean a 'zone of peace'.

— The first of the seven units, to make 'butterfly' and other types of industrial valves, especially for thermal and atomic power stations, the first of its kind in Asia, inaugurated at Bangalore.

1 India and the German Democratic Republic sign in New Delhi an agreement for setting up a joint commission for economic, scientific and technical co-operation.

2 Lubomir Strougal, the Prime Minister of Czechoslovakia, arrives in New Delhi on an official visit.

— The 17th International Dairy Congress opens in New Delhi.

3 India and the German Democratic Republic, in a joint communique issued in New Delhi, call for liquidation of all foreign military bases in the Indian Ocean.

— 1974 Sahitya Akademi awards announced.

— India and Czechoslovakia sign in New Delhi an agreement providing for exchange of television and radio programmes on a regular basis.

4 India and Czechoslovakia, in a joint communique issued in New Delhi, agree for the creation of a 'zone of peace' in the Indian Ocean.

5 Manipur ministry headed by Y. Shaiza resigns.

6 King Yang di-Pertuan of Malaysia arrives in New Delhi on a state visit to India.

— New Manipur ministry headed by Rajkumar Dorendra Singh sworn in at Imphal.

7 The nine-year old embargo on trade between India and Pakistan ends under the agreement signed by the two countries on 30 November 1974.

8 Kasturi Gopalan, publisher of *The Hindu*, passes away in Madras.

9 India and Pakistan exchange last batch of 1971 pre-war detainees at Wagah checkpost.

— India and Norway sign in New Delhi an agreement under which Norway will extend to India assistance of nearly Rs 7.5 crores for strengthening the family welfare programme in rural areas.

10 India and Bangladesh, in a joint communique issued at the end of External Affairs Minister Y.B. Chavan's visit to Dacca, voice concern over the UK-US proposal to expand base facilities in Diego Garcia.

— President Fakhruddin Ali Ahmed receives in New Delhi credentials of the first Ambassador of the Republic of Senegal to India.

— The country's first high-powered sophisticated Air Route Surveillance Radar (ARSR) commissioned at the old Juhu airport in Bombay.

11 India and Iran sign in Teheran an agreement to establish a joint shipping company with Iran holding 51 per cent of the equity shares to expedite trade and economic co-operation between the two countries.

12 S.A. Dange and C. Rajeshwara Rao, CPI leaders, receive 'Order of Lenin', the highest Soviet civilian award, in Moscow.

14 The second 120 mw unit at Koradi super thermal power station commissioned.

— President Fakhruddin Ali Ahmed presents in New Delhi Arjuna Awards, highest national honour in sports, to 17 top performers in 1973 in different disciplines of sport.

15 Smt Rasoolan Bai, doyen of Varanasi *gharana* of classical music, passes away in Allahabad.

— The 1,000-tonne-per-day ammonia plant of the joint sector Southern Petro-Chemical Industries Corporation, said to be the largest in the world, commissioned at Tuticorin.

16 The President gives assent to the Conservation of Foreign Exchange and Prevention of Smuggling Activities Bill which, among other things, provides for preventive detention.

17 India and Indonesia ratify agreement demarcating the continental shelf boundary between the two countries.

— India and Bangladesh sign protocol in New Delhi under which two countries agree to abandon their balanced rupee trade and transact in freely convertible currencies from 1 January 1975.

— Ustad Gulam Sabir Khan, sarangi artiste, passes way in Kanpur.

18 King Jigme Singye Wangchuk of Bhutan arrives in New Delhi on a state visit to India.

— Bharatiya Kranti Dal splinter group led by Mohan Singh Oberoi merges with the Congress.

19 Sangeet Natak Akademi selects 14 eminent artistes for 1974 Akademi awards and three eminent persons for the fellowship of the Akademi.

— Parliament approves the Representation of People's (Amendment) Bill.

— Dr Suniti Kumar Chatterjee, President of the Sahitya Akademi, awarded the humanities gold medal of the Asiatic Society of Bangladesh by President Muhammadullah in Dacca.

20 Indian Navy's second Sea-king Anti-Submarine Air Squadron commissioned at *INS Garuda* in Cochin.

21 *INS Satavahana,* the first establishment of its kind in India to give submarine training, service training and escape and diving training, commissioned at Visakhapatnam.

22 In a joint statement issued in New Delhi, India and Bhutan reaffirm their identity of approach towards all matters affecting the security of the two countries.

25 The President re-issues Order preventing those detained for smuggling activities or violations of foreign exchange regulations from exercising their fundamental right to move courts for legal remedy.

— The Oil and Natural Gas Commission finds oil and natural gas in Baramura near Agartala.

27 Dr Marie Soares, Portuguese Foreign Minister, arrives in New Delhi.

— The 21-year old statutory control on prices of the three passenger cars—Premier-President, Ambassador and Standard—removed.

28 Hira Lal Shastri, the first Chief Minister of Rajasthan and founder of Banasthali Vidyapith, passes away in Jaipur.

30 Agricultural university at Haringhata near Calcutta inaugurated.

— The Fifth International Film Festival opens in New Delhi.

31 India and Portugal re-establish diplomatic relations.

APPENDICES

1 PERSONNEL OF THE GOVERNMENT[1]

President : Fakhruddin Ali Ahmed
Vice-President : B.D. Jatti

	Members of Cabinet	*Portfolios*
1.	Smt Indira Gandhi	Prime Minister, Planning, Atomic Energy, Electronics and Space
2.	Y.B. Chavan	External Affairs
3.	Jagjivan Ram	Agriculture and Irrigation
4.	Swaran Singh	Defence
5.	Uma Shankar Dikshit	Shipping and Transport
6.	H.R. Gokhale	Law, Justice and Company Affairs
7.	Keshav Deo Malaviya	Petroleum and Chemicals
8.	T.A. Pai	Industry and Civil Supplies
9.	K. Raghu Ramaiah	Works and Housing and Parliamentary Affairs
10.	Raj Bahadur	Tourism and Civil Aviation
11.	K. Brahmananda Reddy	Home Affairs
12.	Shankar Dayal Sharma	Communications
13.	Karan Singh	Health and Family Planning
14.	C. Subramaniam	Finance
15.	Kamlapati Tripathi	Railways
	Ministers of State	
16.	D.P. Chattopadhyaya[2]	Commerce
17.	I.K. Gujral[2]	Information and Broadcasting
18.	R.K. Khadilkar[2]	Supply and Rehabilitation
19.	S. Nurul Hasan[2]	Education and Social Welfare and Culture
20.	K.C. Pant[2],[3]	Energy
21.	K.V. Raghunatha Reddy[2]	Labour
22.	Chandrajit Yadav[2]	Steel and Mines
23.	K.R. Ganesh	Petroleum and Chemicals
24.	A.C. George	Industry and Civil Supplies
25.	Shah Nawaz Khan	Agriculture and Irrigation
26.	Smt Sarojini Mahishi	Law, Justice and Company Affairs
27.	B.P. Maurya	Industry and Civil Supplies
28.	Om Mehta	Home Affairs, Personnel and Administrative Reforms and Parliamentary Affairs
29.	Ram Niwas Mirdha	Defence Production
30.	Pranab Kumar Mukherjee	Finance
31.	Mohd. Shafi Qureshi	Railways
32.	Anant Prasad Sharma	Industry and Civil Supplies
33.	Annasahib P. Shinde	Agriculture and Irrigation
34.	Vidya Charan Shukla	Planning
35.	Surendra Pal Singh	Tourism and Civil Aviation
36.	H.M. Trivedi	Shipping and Transport
	Deputy Ministers	
37.	Ziaur Rahman Ansari	Industry and Civil Supplies
38.	Bedabrata Barua	Law, Justice and Company Affairs
39.	Bipinpal Das	External Affairs
40.	A.K.M. Ishaque	Health and Family Planning
41.	C.P. Majhi	Petroleum and Chemicals
42.	F.H. Mohsin	Home Affairs
43.	Arvind Netam	Education and Social Welfare and Culture
44.	Jagannath Pahadia	Communications

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[1] Appendix to Chapter 3. As on 6 March 1975.

[2] Incharge of Ministries/Departments.

[3] Also assists the Prime Minister in the Departments of Atomic Energy, Electronics and Space.

45. Prabhudas Patel	Agriculture and Irrigation.
46. Janaki Ballav Patnaik	Defence
47. B. Shankaranand	Parliamentary Affairs
48. Siddheshwar Prasad	Energy
49. Sukhdev Prasad	Steel and Mines
50. Smt Sushila Rohatgi	Finance
51. Buta Singh	Railways
52. Dalbir Singh	Works and Housing
53. Kedar Nath Singh	Agriculture and Irrigation
54. Vishwanath Pratap Singh	Commerce
55. Dharam Bir Sinha	Information and Broadcasting
56. G. Venkat Swamy	Supply and Rehabilitation
57. Balgovind Verma	Labour
58. D.P. Yadav	Education and Social Welfare and Culture

2 MEMBERS OF PARLIAMENT[1]

RAJYA SABHA (COUNCIL OF STATES)

Chairman . B.D. Jatti
Deputy Chairman · Godey Murahari

Andhra Pradesh (18)

1. Janardhana Reddy
2. A.S. Chowdhri
3. K. Brahmananda Reddy
4. Bezawada Papireddi
5. V.B. Raju
6. Kota Punnaiah
7. Venigalla Satyanarayana
8. M. Anandam
9. Kasim Ali Abid
10. V.C. Kesava Rao
11. Gaddam Narayana Reddy
12. Ratakonda Narasimha Reddy
13. K.L.N. Prasad
14. Smt Rathnabai Srinivasa Rao
15. Katragadda Srinivasa Rao
16. K.V. Raghunatha Reddy
17. M.R. Krishna
18. Mohammad Yunus Salim

Assam (7)

19. Nripati Ranjan Choudhury
20. B.C. Bhagwati
21. N.C. Buragohain
22. Sriman Prafulla Goswami
23. Bipinpal Das
24. Emonsing M. Sangma
25. D.K. Borooah

Bihar (22)

26. Ramkripal Sinha
27. Smt Aziza Imam
28. D.P. Singh
29. Kamalnath Jha
30. Chandramanilal Choudhary
31. Gunanand Thakur
32. Shyamlal Gupta
33. Bhupendra Narayan Mandal
34. Kameshwar Singh
35. Yogendra Sharma
36. Shishir Kumar
37. Dharam Chand Jain
38. Indradeep Sinha
39. B.R. Munda
40. Smt Jahanara Jaipal Singh
41. Bhola Prasad
42. Bhola Paswan Shastri
43. Sitaram Kesri
44. Rajendra Kumar Poddar
45. Sitaram Singh
46. Awadheshwar Prasad Sinha
47. Smt Pratibha Singh

Gujarat (11)

48. Yogendra Makwana
49. Smt Sumitra G. Kulkarni
50. D.K. Patel
51. Smt Kumudben Manishanker Joshi
52. Himmat Sinh
53. Vacant
54. Ibrahim Kalania
55. Vacant
56. H.M. Trivedi
57. Vacant
58. Manubhai Shah

Haryana (5)

59. D.D. Puri
60. Ranbir Singh
61. Parbhu Singh
62. Krishan Kant
63. Sultan Singh

Himachal Pradesh (3)

64. Roshan Lal
65. Jagan Nath Bhardwaj
66. Gian Chand Totu

Jammu and Kashmir (4)

67. Om Mehta
68. Vacant
69. Syed Nizam-ud-din
70. Tirath Ram Amla

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[1] Appendix to Chapter 3. As on 12 March 1975.

Karnataka (12)

71. Veerendra Patil
72. Malappa Lingappa Kollur
73. K. Nagappa Alva
74. Mulka Govinda Reddy
75. Smt Margaret Alva
76. T.A. Pai
77. B. Rachaiah
78. U.K. Lakshmana Gowda
79. Maqsood Ali Khan
80. K.S. Malle Gowda
81. B.P. Nagaraja Murthy
82. H.S. Narasiah

Kerala (9)

83. Hamid Ali Schamnad
84. P.K. Kunjachen
85. Smt Leela Damodara Menon
86. Viswanatha Menon
87. B.V. Abdulla Koya
88. V.A. Seyid Muhammad
89. K. Mathew Kurian
90. K. Chandrasekharan
91. S. Kumaran

Madhya Pradesh (16)

92. S.C. Angre
93. Jagdish Joshi
94. Bhawaniprasad Tiwary
95. Smt Vidyawati Chaturvedi
96. Narayan Prasad Chaudhari
97. M.B. Singh
98. Balram Das
99. Vijaya Bhushan Deosharan
100. Smt Maimoona Sultan
101. Bhairon Singh Shekhawat
102. Smt Shyamkumari Devi
103. Chakrapani Shukla
104. Sawaisingh Sisodia
105. Shankarlal Tiwari
106. Nand Kishore Bhatt
107. V.K. Sakhalecha

Maharashtra (19)

108. Narayan Ganesh Goray
109. S. Wasudeorao Dhabe
110. Deorao Shivram Patil
111. Babubhai M. Chinai
112. Narendra Marutrao Kamble
113. R.D. Jagtap Avergoankar
114. Sikandar Ali Wajd
115. Vithal Gadgil
116. N.H. Kumbhare
117. Arvind Ganesh Kulkarni
118. Krishnarao Narayanrao Dhulap
119. Smt Sushila Shankar Adivarekar
120. Gulabrao Patil
121. Shankarrao Bajirao Bobdey
122. Jayant Shridhar Tilak
123. Shriniwas Ganesh Sardesai
124. D.Y. Pawar
125. V.R. Parashar
126. M.R. Vyas

Manipur (1)

127. Irengbam Tompok Singh

Meghalaya (1)

128. Showaless K. Shilla

Nagaland (1)

129. Khyomo Lotha

Orissa (10)

130. Brahmananda Panda
131. Binoy Kumar Mahanti
132. C.P. Majhi
133. Bira Kesari Deo
134. K.P. Singh Deo
135. Rabi Ray
136. Lakshmana Mahapatro
137. Lokanath Misra
138. B.C. Mahanti
139. Smt Saraswati Pradhan

Punjab (7)

140. Mohan Singh
141. Jagjit Singh Anand
142. Bhupinder Singh
143. Gurcharan Singh Tohra
144. Niranjan Singh Talib
145. Inder Kumar Gujral
146. Gurmukh Singh Musafir

Rajasthan (10)

147. Nathi Singh
148. Smt Lakshmi Kumari Chundawat
149. Jagdish Prasad Mathur
150. Jamna Lal Berwa
151. Smt Narayanidevi Manaklal Varma
152. Mohammed Usman Arif
153. Ram Niwas Mirdha
154. Rishi Kumar Mishra
155. Kishan Lal Sharma
156. Ganesh Lal Mali

Tamil Nadu (18)

157. A.K. Refaye
158. T.K. Srinivasan
159. K.A. Krishnaswamy
160. Kanchi Kalyanasundaram
161. M. Kader Shah
162. M. Kamalanathan
163. C.D. Natarajan
164. S.S. Mariswamy
165. S. Ranganathan
166. M.C. Balan
167. S.S. Rajendran
168. T.V. Anandan
169. M.S. Abdul Khader
170. V.V. Swaminathan
171. A.K.A. Abdul Samad
172. G. Lakshmanan
173. John *alias* Valampuri John
174. S.A. Khaja Mohideen

Tripura (1)

175. Birchandra Deb Barman

Uttar Pradesh (34)

176. Banarsi Das
177. Dattopant Thengari
178. Kalp Nath
179. Sukhdev Prasad
180. Jagbir Singh
181. Devendra Nath Dwivedi
182. Piare Lall Kureel *urf* Talib
183. Yashpal Kapur
184. Nawal Kishore
185. Mahavir Tyagi
186. Harsh Deo Malviya
187. S. Nurul Hasan
188. Triloki Singh
189. Prakash Veer Shastri
190. Anand Narain Mulla
191. Mahadeo Prasad Varma
192. Mohan Singh Oberoi
193. Nageshwar Prasad Shahi
194. Kalyan Chand
195. T.N. Singh
196. Uma Shankar Dikshit
197. Chandra Shekhar
198. Rajnarain
199. Shiv Dayal Singh Chaurasia
200. V.B. Singh
201. Z.A. Ahmad
202. Godey Murahari
203. Om Prakash Tyagi
204. Subramanian Swamy
205. Shyam Lal Yadav
206. Mahabir Prasad Shukla
207. Inder Singh
208. Kamlapati Tripathi
209. Syed Ahmad Hashmi

West Bengal (16)

210. Sasankasekhar Sanyal
211. Suhrid Mullick Choudhury
212. Sardar Amjad Ali
213. Rajat Kumar Chakrabarti
214. Krishna Bahadur Chettri
215. Dwijendralal Sen Gupta
216. Bhupesh Gupta
217. Kalyan Roy
218. Debiprasad Chattopadhyaya
219. Kali Mukherjee
220. Smt Purabi Mukhopadhyay
221. Salil Kumar Ganguli
222. Niren Ghosh
223. Sanat Kumar Raha
224. Pranab Mukherjee
225. Monoranjan Roy

Arunachal Pradesh (1)

226. Todak Basar[1]

Delhi (3)

227. Khurshed Alam Khan
228. Smt Savita Behen
229. Lal K. Advani

Mizoram (1)

230. Lalbuaia

Pondicherry (1)

231. S. Sivaprakasam

Nominated by the President (12)]

232. Rasheeduddin Khan
233. C.K. Daphtary
234. Umashankar Joshi
235. Jairamdas Daulatram
236. Pramatha Nath Bisi
237. Lokesh Chandra
238. Smt Maragatham Chandrasekhar
239. Krishna Kripalani
240. Habib Tanvir
241. Abu Abraham
242. Scato Swu
243. V.P. Dutt

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[1] Nominated by the President.

LOK SABHA (HOUSE OF THE PEOPLE)

Speaker : G.S. Dhillon
Deputy Speaker : G.G. Swell

Sl. No.	Constituency	Name of the Member	Party[1]
1	2	3	4
	Andhra Pradesh (41)		
1.	Adilabad	Poddutoori Ganga Reddy	Cong.
2.	Amalapuram (R)	B.S. Murthy	Cong.
3.	Anakapalli	S.R.A.S. Appalanaidu	Cong.
4.	Anantapur	Ponnapati Antony Reddi	Cong.
5.	Bhadrachalam (R)	Smt B. Radhabai Ananda Rao	Cong.
6.	Bobbili	K. Narayana Rao	Cong.
7.	Chittoor	P. Narasimha Reddy	Cong.
8.	Cuddapah	Y. Eswara Reddy	CPI
9.	Eluru	Kommareddi Suryanarayana	Cong.
10.	Gudivada	Maganti Ankineedu	Cong.
11.	Guntur	K. Raghu Ramaiah	Cong.
12.	Hindupur	P. Bayapa Reddy	Cong.
13.	Hyderabad	G.S. Melkote	Cong.
14.	Kakinada	M.S. Sanjeevi Rao	Cong.
15.	Karimnagar	M. Satyanarayan Rao	TPS
16.	Kavali	P. Venkata Reddy	Cong.
17.	Khammam	Smt T. Lakshmi Kantamma	Cong.
18.	Kurnool	K. Kodanda Rami Reddy	Cong.
19.	Machilipatnam	Meduri Nageswararao	Cong.
20.	Mahbubnagar	J. Rameshwar Rao	Cong.
21.	Medak	Mallikarjun	Cong.
22.	Miryalguda	B.N. Reddy	CPI (M)
23.	Nagarkurnool (R)	M. Bheeshma Dev	Cong.
24.	Nalgonda	K. Ramkrishna Reddy	Cong.
25.	Nandyal	P. Venkatasubbaiah	Cong.
26.	Narasapur	M.T. Raju	Cong.
27.	Narasaraopet	Maddi Sudarsanam	Cong.
28.	Nellore (R)	D. Kamakshaiah	Cong.
29.	Nizamabad	Muduganti Ram Gopal Reddy	Cong.
30.	Ongole	P. Ankineedu Prasadarao	Cong.
31.	Parvathipuram (R)	Biddika Satyanarayana	Cong.
32.	Peddapalli (R)	V. Tulasiram	Cong.
33.	Rajahmundry	S.B.P. Pattabhi Ramarao	Cong.
34.	Rajampet	P. Parthasarathy	Cong.
35.	Secunderabad	M.M. Hashim	Cong.
36.	Siddipet (R)	G. Venkat Swamy	Cong.
37.	Srikakulam	B. Rajagopalarao	Cong.
38.	Tirupathi (R)	T. Balakrishniah	Cong.
39.	Vijayawada	K.L. Rao	Cong.
40.	Visakhapatnam	P.V.G. Raju	Cong.
41.	Warangal	S.B. Giri	TPS
	Assam (14)		
42.	Barpeta	Ismail Hossain Khan	Cong.
43.	Cachar	Noorul Huda	CPI (M)
44.	Dhubri	Moinul Haque Choudhury	Cong.
45.	Dibrugarh	Robindra Nath Kakoti	Cong.

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[1] The abbreviations used are: Congress Party (Cong.); Communist Party of India (Marxist) CPI (M); Communist Party of India (CPI); Dravida Munnetra Kazhagam (DMK); Anna Dravida Munnetra Kazhagam (ADMK); Jana Sangh (JS); Congress (Opposition) Party (Cong. O); Telengana Praja Samiti (TPS); Socialist Party (SP); Muslim League (ML); Revolutionary Socialist Party (RSP); Kerala Congress (KC); United Independent Parliamentary Group (UIPG); Forward Bloc (FB); Bhartiya Lok Dal (BLD); and Unattached (UA).

(R) indicates reserved seats.

1	2	3	4
46.	Diphu (R)	Biren Engti	Cong.
47.	Gauhati	Dinesh Chandra Goswami	Cong.
48.	Jorhat	Tarun Gogoi	Cong.
49.	Kaliabor	Bedabrata Barua	Cong.
50.	Karimganj (R)	Nihar Ranjan Laskar	Cong.
51.	Kokrajhar (R)	D. Basumatari	Cong.
52.	Lakhimpur	Biswanarayan Shastri	Cong.
53.	Mangaldai	Dharanidhar Das	Cong.
54.	Nowgong	Liladhar Kotoki	Cong.
55.	Tezpur	Kamala Prasad	Cong.
	Bihar (53)		
56.	Araria (R)	Tulmohan Ram	Cong.
57.	Aurangabad	Satyendra Narayan Sinha	Cong.(O)
58.	Bagaha (R)	Bhola Raut	Cong.
59.	Banka	Madhu Limaye	SP
60.	Barh	Dharam Bir Sinha	Cong.
61.	Begusarai	Shyamnandan Mishra	Cong.(O)
62.	Bettiah	Vacant	
63.	Bhagalpur	Bhagwat Jha Azad	Cong.
64.	Bikramganj	Shiopujan Shastri	Cong.
65.	Buxar	Anant Prasad Sharma	Cong.
66.	Chapra	Ramshekhar Prasad Singh	Cong.
67.	Chatra	Shankar Dayal Singh	Cong.
68.	Darbhanga	Vacant	
69.	Dhanbad	Ram Narain Sharma	Cong.
70.	Dumka (R)	S.C. Besra	Cong.
71.	Gaya (R)	Ishwar Chaudhry	JS
72.	Giridih	Chapalendu Bhattacharyya	Cong.
73.	Godda	Jagdish Narain Mandal	Cong.
74.	Gopalganj	D.N. Tiwary	Cong.
75.	Hajipur	Digvijaya Narain Singh	Cong.(O)
76.	Hazaribagh	Damodar Pandey	Cong.
77.	Jainagar	Bhogendra Jha	CPI
78.	Jamshedpur	Swaran Singh Sokhi	Cong.
79.	Jamui (R)	Bhola Manjhi	CPI
80.	Jehanabad	Chandra Shekar Singh	CPI
81.	Katihar	Gyaneshwar Prasad Yadav	JS
82.	Kesaria	K.M. Madhukar	CPI
83.	Khagaria	Shivashankar Prasad Yadav	BLD
84.	Khunti (R)	Niral Enem Horo	UIPG
85.	Kishanganj	Md. Jamilur Rahman	Cong.
86.	Lohardaga (R)	Kartik Oraon	Cong.
87.	Madhipura	R.P. Yadav	Cong.
88.	Madhubani	Jagannath Mishra	Cong.
89.	Maharajganj	Ram Deo Singh	SP
90.	Monghyr	Devnandan Prasad Yadav	Cong.
91.	Motihari	Bibhuti Mishra	Cong.
92.	Muzaffarpur	Nawal Kishore Sinha	Cong.
93.	Nalanda	Siddheshwar Prasad	Cong.
94.	Nawada	Sukhdeo Prasad Verma	Cong.
95.	Palamau (R)	Kum Kamla Kumari	Cong.
96.	Patna	Ramavatar Shastri	CPI
97.	Pupri	Hari Kishore Singh	Cong.
98.	Purnea	Mohammad Tahir	Cong.
99.	Rajmahal (R)	Yogesh Chandra Murmu	Cong.
100.	Ranchi	P.K. Ghosh	Cong.
101.	Rosera (R)	Ram Bhagat Paswan	Cong.
102.	Saharsa	Chiranjib Jha	Cong.
103.	Samastipur	Yamuna Prasad Mandal	Cong.
104.	Sasaram (R)	Jagjivan Ram	Cong.
105.	Shahabad	Bali Ram Bhagat	Cong.
106.	Singhbhum (R)	Moran Singh Purty	UIPG
107.	Sitamarhi	Nagendra Prasad Yadav	Cong.
108.	Siwan	Mohammad Yusuf	Cong.

1	2	3	4
	Gujarat (24)		
109.	Ahmadabad	P.G. Mavalankar	UA
110.	Amreli	Jivraj N. Mehta	Cong.
111.	Anand	Pravinsinh Natvarsinh Solanki	Cong.(O)
112.	Banaskantha	Popatlal Mulshankerbhai Joshi	Cong.
113.	Baroda	Fatesinghrao Gaekwad	Cong.
114.	Bhavnagar	Prasannbhai Mehta	Cong.(O)
115.	Broach	Vacant	
116.	Bulsar (R)	Nanubhai N. Patel	Cong.(O)
117.	Dabhoi	Prabhudas Patel	Cong.
118.	Dhandhuka	H.M. Patel	BLD
119.	Dohad (R)	Bhaljibhai Ravjibhai Parmar	Cong.(O)
120.	Gandhinagar (R)	Somchand Solanki	Cong.(O)
121.	Godhra	Piloo Mody	BLD
122.	Jamnagar	Daulatsinhji Pratapsinhji Jadeja	Cong.
123.	Junagadh	Nanjibhai Ravjibhai Vekaria	Cong.
124.	Kaira	D.D. Desai	Cong.
125.	Kutch	Mahipatray M. Mehta	Cong.
126.	Mandvi (R)	Amarsinh Chaudhary	Cong.
127.	Mehsana	Natvarlal Amrutlal Patel	Cong.
128.	Patan (R)	Khemchandbhai Somabhai Chavda	Cong.(O)
129.	Rajkot	Arvind Kumar Mohanlal Patel	Cong.
130.	Sabarkantha	Kum. Maniben Vallabhbhai Patel	Cong.(O)
131.	Surat	Morarji Desai	Cong.(O)
132.	Surendranagar	Rasiklal Parikh	Cong.
	Haryana (9)		
133.	Ambala (R)	Ch. Ram Prakash	Cong.
134.	Gurgaon	Chaudry Tayyab Hussain Khan	Cong.
135.	Hisar	Mani Ram Godara	Cong.
136.	Jhajjar	Sher Singh	Cong.
137.	Kaithal	Gulzari Lal Nanda	Cong.
138.	Karnal	Madho Ram Sharma	Cong.
139.	Mahendragarh	Rao Birender Singh	UA
140.	Rohtak	Mukhtiar Singh Malik	JS
141.	Sirsa (R)	Dalbir Singh	Cong.
	Himachal Pradesh (4)		
142.	Hamirpur	Narain Chand Parashar	Cong.
143.	Kangra	Vikram Mahajan	Cong.
144.	Mandi	Virbhadra Singh	Cong.
145.	Simla (R)	Vacant	
	Jammu and Kashmir (6)		
146.	Anantnag	Mohamed Shafi Qureshi	Cong.
147.	Baramulla	Syed Ahmed Aga	Cong.
148.	Jammu	Inder J. Malhotra	Cong.
149.	Ladakh	Kushok Bakula	Cong.
150.	Srinagar	S.A. Shamim	UA
151.	Udhampur	Karan Singh	Cong.
	Karnataka (27)		
152.	Bagalkot	S.B. Patil	Cong.
153.	Bangalore	K. Hanumanthaiya	Cong.
154.	Belgaum	A.K. Kotrashetti	Cong.
155.	Bellary	V.K.R. Varadaraja Rao	Cong.
156.	Bidar (R)	Shankar Deo	Cong.
157.	Bijapur	Bhimappa Ellappa Choudhari	Cong.
158.	Chamarajanagar (R)	S.M. Siddayya	Cong.
159.	Chikmagalur	D.B. Chandre Gowda	Cong.
160.	Chikodi (R)	B. Shankaranand	Cong.
161.	Chitradurga	Kondajji Basappa	Cong.

1	2	3	4
162.	Dharwar North	Smt Sarojini Mahishi	Cong.
163.	Dharwar South	F.H. Mohsin	Cong.
164.	Gulbarga	Sidram Reddy	Cong.
165.	Hassan	Nuggehalli Shivappa	Cong.
166.	Hoskote	M.V. Krishnappa	Cong.
167.	Kanakapura	C.K. Jaffer Sharief	Cong.
168.	Kanara	B.V. Naik	Cong.
169.	Kolar (R)	G.Y. Krishnan	Cong.
170.	Koppal	Siddarameshwar Swami	Cong.
171.	Mandya	K. Chikkalingaiah	Cong.
172.	Madhugiri	K. Mallanna	Cong.
173.	Mangalore	K.K. Shetty	Cong.
174.	Mysore	Tulsidas Dasappa	Cong.
175.	Raichur	Pampan Gowda	Cong.
176.	Shimoga	T.V. Chandrashekharappa Veerabasappa	Cong.
177.	Tumkur	K. Lakkappa	Cong.
178.	Udipi	P. Ranganath Shenoy	Cong.
	Kerala (19)		
179.	Adoor (R)	Smt Bhargavi Thankappan	CPI
180.	Ambalapuzha	K. Balakrishnan	RSP
181.	Badagara	K.P. Unnikrishnan	Cong.
182.	Chirayinkil	Vayalar Ravi	Cong.
183.	Ernakulam	Henry Austin	Cong.
184.	Kasargod	Ramachandran Kadannappalli	Cong.
185.	Kottayam	Varkey George	KC
186.	Kozhikode	Ebrahim Sulaiman Sait	ML
187.	Manjeri	C.H. Mohammed Koya	ML
188.	Mavelikara	R. Balakrishna Pillai	KC
189.	Mukundapuram	A.C. George	Cong.
190.	Muvattupuzha	C.M. Stephen	Cong.
191.	Palghat	A.K. Gopalan	CPI (M)
192.	Peermade	M.M. Joseph	KC
193.	Ponnani (R)	M.K. Krishnan	CPI (M)
194.	Quilon	N. Sreekantan Nair	RSP
195.	Tellicherry	C.K. Chandrappan	CPI
196.	Trichur	C. Janardhanan	CPI
197.	Trivandrum	Vacant	
	Madhya Pradesh (37)		
198.	Balaghat	C.D. Gautam	Cong.
199.	Bastar (R)	Lambodar Baliar	Cong.
200.	Betul	N.K.P. Salve	Cong.
201.	Bhind	Smt V.R. Scindia	JS
202.	Bhopal	Shankar Dayal Sharma	Cong.
203.	Bilaspur	R.G. Tiwari	Cong.
204.	Chhindwara	Gargi Shankar Mishra	Cong.
205.	Damoh	V. Shanker Giri	Cong.
206.	Dhar (R)	Bharat Singh Chowhan	JS
207.	Durg	Chandulal Chandrakar	Cong.
208.	Guna	Madhavrao Scindia	JS
209.	Gwalior	Atal Bihari Vajapayee	JS
210.	Hoshangabad	Chaudhary Nitiraj Singh	Cong.
211.	Indore	Ramsingh Bhai	Cong.
212.	Jabalpur	Sharad Yadav	SP
213.	Janjgir (R)	Bhagatram Rajaram Manhar	Cong.
214.	Jhabua (R)	Bhagirath Ramaji Bhanwar	BLD
215.	Kanker (R)	Arvind Netam	Cong.
216.	Khandwa	Gangacharan Dixit	Cong.
217.	Khargone	R.V. Bade	JS
218.	Mahasamund	Shrikrishna Agrawal	Cong.
219.	Mandla (R)	M.G. Uikey	Cong.
220.	Mandsaur	L.N. Pandeya	JS
221.	Morena (R)	Hukam Chand Kachhwai	JS

1	2	3	4
222.	Raigarh (R)	Ummed Singh Rathia	Cong.
223.	Raipur	Vidya Charan Shukla	Cong.
224.	Rajnandgaon	Ramsahai Pandey	Cong.
225.	Rewa	Martand Singh	UIPG
226.	Sagar (R)	Smt Sahodrabai Rai	Cong.
227.	Satna	Narendra Singh	JS
228.	Shahdol (R)	Dhan Shah Pradhan	UIPG
229.	Shajapur	Jagannathrao Joshi	JS
230.	Sidhi	Rana Bahadur Singh	UIPG
231.	Surguja (R)	Babunath Singh	Cong.
232.	Tikamgarh (R)	Nathu Ram Ahirwar	Cong.
233.	Ujjain (R)	Phool Chand Verma	JS
234.	Vidisha	R.N. Goenka	UIPG
	Maharashtra (45)		
235.	Ahmednagar	Annasahib P. Shinde	Cong.
236.	Akola	Vasant Sathe	Cong.
237.	Amravati	K.G. Deshmukh	Cong.
238.	Aurangabad	Manikrao Palodakar	Cong.
239.	Baramati	R.K. Khadilkar	Cong.
240.	Bhandara	Jwala Prasadji Dube	Cong.
241.	Bhir	S.T. Pandit	Cong.
242.	Bhiwandi	Shrikrishna Vaijnath Dhamankar	Cong.
243.	Bombay Central	Smt Roza Vidyadhar Deshpande	CPI
244.	Bombay Central-South	Salebhoy Abdul Kader	Cong.
245.	Bombay North-East	Raja Kulkarni	Cong.
246.	Bombay North-West	H.R. Gokhale	Cong.
247.	Bombay South	N.N. Kailas	Cong.
248.	Buldana	Yadav Shivram Mahajan	Cong.
249.	Chanda	Abdul Shafee	Cong.
250.	Chimur	Krishnarao Thakur	Cong.
251.	Dahanu (R)	Laxman Kakadya Dumada	Cong.
252.	Dhulia	C.A. Patil	Cong.
253.	Hatkangale	Dattajirao Baburao Kadam	Cong.
254.	Jalgaon	Krishnarao Madhavrao Patil	Cong.
255.	Jalna	Baburao Jangluji Kale	Cong.
256.	Karad	Smt Premalabai Dajisaheb Chavan	Cong.
257.	Khamgaon (R)	Arjun Shripat Kasture	Cong.
258.	Khed	Anantrao Patil	Cong.
259.	Kolaba	Shankarrao Savant	Cong.
260.	Kolhapur	Rajaram D. Nimbalkar	Cong.
261.	Kopargaon	Eknath Vithalrao Vikhe Patil	Cong.
262.	Latur (R)	Tulsiram Dashrath Kamble	Cong.
263.	Malegaon (R)	Z.M. Kahandole	Cong.
264.	Nagpur	Jambuvant Dhote	FB
265.	Nanded	Venkatrao B. Tarodekar	Cong.
266.	Nandurbar (R)	T.H. Gavit	Cong.
267.	Nasik	B.R. Kavade	Cong.
268.	Osmanabad	T.A. Patil	Cong.
269.	Pandharpur (R)	Nivruti Satwaji Kamble	UA
270.	Parbhani	Shivajirao S. Deshmukh	Cong.
271.	Poona	Mohan Dharia	Cong.
272.	Rajapur	Madhu Dandavate	SP
273.	Ramtek	Ram Hedaoo	UA
274.	Ratnagiri	S.L. Pejo	Cong.
275.	Sangli	Anna Saheb Gotkhinde	Cong.
276.	Satara	Y.B. Chavan	Cong.
277.	Sholapur	S.R. Damani	Cong.
278.	Wardha	J.G. Kadam	Cong.
279.	Yeotmal	S.B. Thakre	Cong.
	Manipur (2)		
280.	Inner Manipur	N. Tombi Singh	Cong.
281.	Outer Manipur (R)	Paokai Hokip	Cong.

1	2	3	4
	Meghalaya (2)		
282.	Shillong (R)	G.G. Swell	UA
283.	Tura (R)	Karnesh Marak	UA
	Nagaland (1)		
284.	Nagaland	A. Kevichusa	UIPG
	Orissa (20)		
285.	Angul	Badakumar Pratap Gangadeb	Cong.
286.	Balasore	Shyam Sunder Mahapatra	Cong.
287.	Bhadrak (R)	Arjun Sethi	Cong.
288.	Bhanjanagar	Duti Krushna Panda	CPI
289.	Bhubaneswar	Chintamani Panigrahi	Cong.
290.	Bolangir	R.R. Singh Deo	BLD
291.	Chatrapur	Jagannath Rao	Cong.
292.	Cuttack	Janaki Ballav Patnaik	Cong.
293.	Dhenkanal	Devendra Satpathy	Cong.
294.	Jajpur (R)	Anadi Charan Das	Cong.
295.	Kalahandi	Pratap Keshari Deo	BLD
296.	Kendrapara	Surendra Mohanty	BLD
297.	Keonjhar (R)	Kumar Majhi	Cong.
298.	Koraput (R)	Giridhar Gomango	Cong.
299.	Mayurbhanj (R)	Chandramohan Sinha	BLD
300.	Nowrangpur (R)	K. Pradhani	Cong.
301.	Phulbani (R)	Baksi Nayak	BLD
302.	Puri	Banamali Patnaik	Cong.
303.	Sambalpur	Banamali Babu	Cong.
304.	Sundargarh (R)	Gajadhar Majhi	Cong.
	Punjab (13)		
305.	Amritsar	Raghunandan Lal Bhatia	Cong.
306.	Bhatinda (R)	B.S. Bhaura	CPI
307.	Fazilka	Gurdas Singh Badal	UA
308.	Ferozepore	Mohinder Singh Gill	Cong.
309.	Gurdaspur	Prabodh Chandra	Cong.
310.	Hoshiarpur	Darbara Singh	Cong.
311.	Jullundur	Swaran Singh	Cong.
312.	Ludhiana	Devinder Singh Garcha	Cong.
313.	Patiala	Sat Pal Kapur	Cong.
314.	Phillaur (R)	Chaudhary Sadhu Ram	Cong.
315.	Rupar (R)	Buta Singh	Cong.
316.	Sangrur	Vacant	
317.	Tarn Taran	Gurdial Singh Dhillon[1]	
	Rajasthan (23)		
318.	Ajmer	Bashweshwar Nath Bhargava	Cong.
319.	Alwar	Hari Prasad Sharma	Cong.
320.	Banswara (R)	Hiralal Doda	Cong.
321.	Barmer	Amrit Nahata	Cong.
322.	Bharatpur	Raj Bahadur	Cong.
323.	Bhilwara	Hemendra Singh Banera	JS
324.	Bikaner	Karni Singh	UIPG
325.	Chittorgarh	Bishwanath Jhunjhunwala	UA
326.	Dausa	Nawal Kishore Sharma	Cong.
327.	Ganganagar (R)	Panna Lal Barupal	Cong.
328.	Hindaun (R)	Jagannath Pahadia	Cong.
329.	Jaipur	Smt Gayatri Devi	UA
330.	Jalore	N.K. Sanghi	Cong.
331.	Jhalawar	Brijraj Singh	Cong.

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[1] Dr G.S. Dhillon was elected on the Congress ticket but ceased to have any party affiliation after his election as Speaker of the Lok Sabha.

1	2	3	4
332.	Jhunjhunu	S.N. Singh	Cong.
333.	Jodhpur	Smt Krishna Kumari	UIPG
334.	Kota (R)	Onkar Lal Berwa	JS
335.	Nagaur	Nathuram Mirdha	Cong.
336.	Pali	Mool Chand Daga	Cong.
337.	Sawai Madhopur (R)	Chhuttan Lal	Cong.
338.	Sikar	Shrikrishan Modi	Cong.
339.	Tonk (R)	Ram Kanwar	BLD
340.	Udaipur (R)	Lalji Bhai	JS
	Tamil Nadu (39)		
341.	Chidambaram (R)	V. Mayavan	DMK
342.	Chingleput	C. Chittibabu	DMK
343.	Coimbatore	Smt Parvathi Krishnan	CPI
344.	Cuddalore	S. Radhakrishnan	Cong.
345.	Dharapuram (R)	C.T. Dhandapani	DMK
346.	Dindigul	K. Mayathevar	ADMK
347.	Gobichettipalayam	P.A. Swamynathan	DMK
348.	Kallakurichi	M. Deiveekan	DMK
349.	Karur	K. Gopal	Cong.
350.	Krishnagiri	C. Subramaniam	Cong.
351.	Kumbakonam	Era Sezhiyan	DMK
352.	Madras North	Krishnan Manoharan	ADMK
353.	Madras South	Murasoli Maran	DMK
354.	Madurai	R.V. Swaminathan	Cong.
355.	Mayuram (R)	K. Subravelu	DMK
356.	Mettur	Iruppu Govindaswamy Bhuvarahan	Cong.
357.	Nagapattinam	M. Kathamuthu	CPI
358.	Nagercoil	K. Kamaraj	Cong. (O)
359.	Nilgiris	J.M. Gowder	DMK
360.	Perambalur (R)	A. Durairasu	DMK
361.	Periakulam	Muhammed Sheriff	ML
362.	Pollachi	Mohan Raj	DMK
363.	Pudukkottai	K. Veeriah	DMK
364.	Ramanathapuram	P.K.M. Thevar	FB
365.	Salem	E.R. Krishnan	DMK
366.	Sivaganga	T. Kiruttinan	DMK
367.	Sivakasi	Smt Venkatasami Jeyalakshmi	Cong.
368.	Sriperumbudur (R)	T.S. Lakshmanan	DMK
369.	Tenkasi (R)	A.M. Chellachami	Cong.
370.	Thanjavur	S.D. Somasundaram	ADMK
371.	Tindivanam	M.R. Lakshminarayanan	Cong.
372.	Tiruchendur	M.S. Sivasamy	DMK
373.	Tiruchengode	M. Muthuswamy	ADMK
374.	Tiruchirappalli	M. Kalyanasundaram	CPI
375.	Tirunelveli	S.A. Muruganantham	CPI
376.	Tiruppattur	C.K. Chinnaraji	DMK
377.	Tiruttani	O.V. Alagesan	Cong.
378.	Vellore (R)	R.P. Ulaganambi	DMK
379.	Wandiwash	G. Viswanathan	DMK
	Tripura (2)		
380.	Tripura East (R)	D. Deb	CPI(M)
381.	Tripura West	Biren Dutta	CPI(M)
	Uttar Pradesh (85)		
382.	Agra	Achal Singh	Cong.
383.	Akbarpur (R)	Ramji Ram	Cong.
384.	Aligarh	Shiv Kumar Shastri	BLD
385.	Allahabad	Jeneshwar Misra	BLD
386.	Almora	Narendra Singh Bisht	Cong.
387.	Amethi	Vidya Dhar Bajpai	Cong.
388.	Amroha	Ishaq Sambhali	CPI
389.	Aonla	Smt Savitri Shyam	Cong.

1	2	3	4
390.	Azamgarh	Chandrajeet Yadav	Cong.
391.	Baghpat	Ram Chandra Vikal	Cong.
392.	Bahraich	Badlu Ram Shukla	Cong.
393.	Ballia	Chandrika Prasad	Cong.
394.	Balrampur	Chandra Bhal Mani Tewari	Cong.
395.	Banda	R.R. Sharma	JS
396.	Bansgaon (R)	Ram Surat Prasad	Cong.
397.	Bara Banki	Rudra Pratap Singh	Cong.
398.	Bareilly	Satish Chandra	Cong.
399.	Basti (R)	A.P. Dhusia	Cong.
400.	Bijnor (R)	Ram Dayal	Cong.
401.	Bilhaur	Smt Sushila Rohatgi	Cong.
402.	Budaun	Karan Singh Yadav	Cong.
403.	Bulandshahr	Surendra Pal Singh	Cong.
404.	Chail (R)	Chhotey Lal	Cong.
405.	Chandauli	Sudhakar Pandey	Cong.
406.	Dehra Dun	Mulki Raj Saini	Cong.
407.	Deoria	Bishwanath Roy	Cong.
408.	Domariaganj	K.D. Malaviya	Cong.
409.	Etah	Rohanlal Chaturvedi	Cong.
410.	Etawah	Shri Shanker Tewari	Cong.
411.	Faizabad	R.K. Sinha	Cong.
412.	Farrukhabad	Awdhesh Chandra Singh	Cong.
413.	Fatehpur	Sant Bux Singh	Cong.
414.	Firozabad (R)	Chhatrapati Ambesh	Cong.
415.	Garhwal	Pratap Singh Negi	Cong.
416.	Ghatampur (R)	Tula Ram	Cong.
417.	Ghazipur	Sarjoo Pandey	CPI
418.	Ghosi	Jharkhandey Rai	CPI
419.	Gonda	Anand Singh	Cong.
420.	Gorakhpur	Narsingh Narain Pandey	Cong.
421.	Hamirpur	Swami Brahmanand	Cong.
422.	Hapur	Buddha Priya Maurya	Cong.
423.	Hardoi (R)	Kinder Lal	Cong.
424.	Hathras (R)	Chandra Shailani	Cong.
425.	Jalaun (R)	Chowdhary Ram Sewak	Cong.
426.	Jaunpur	Rajdeo Singh	Cong.
427.	Jhansi	Govind Dass Richhariya	Cong.
428.	Kairana	Shafquat Jung	Cong.
429.	Kaisarganj	Smt Shakuntala Nayar	JS
430.	Kannauj	S.N. Misra	Cong.
431.	Kanpur	S.M. Banerjee	CPI
432.	Kasganj	Mahadeepak Singh Shakya	JS
433.	Khalilabad	Krishna Chandra Pandey	Cong.
434.	Kheri	Balgovind Verma	Cong.
435.	Khurja (R)	Hari Singh	Cong.
436.	Lalganj (R)	Ram Dhan	Cong.
437.	Lucknow	Smt Sheila Kaul	Cong.
438.	Machhlishahr	Nageshwar Dwivedi	Cong.
439.	Maharajganj	Shibban Lal Saksena	UA
440.	Mainpuri	Maharaj Singh	Cong.
441.	Mathura	Chakleshwar Singh	Cong.
442.	Meerut	Shahnawaz Khan	Cong.
443.	Mirzapur	Aziz Imam	Cong.
444.	Misrikh (R)	Sankta Prasad	Cong.
445.	Mohanlalganj (R)	Smt Ganga Devi	Cong.
446.	Moradabad	Virendra Agarwala	JS
447.	Muzaffarnagar	Vijay Pal Singh	CPI
448.	Nainital	Krishna Chandra Pant	Cong.
449.	Padrauna	Genda Singh	Cong.
450.	Phulpur	V.N.P. Singh	Cong.
451.	Pilibhit	Mohan Swarup	Cong.
452.	Pratapgarh	Dinesh Singh	Cong.
453.	Rae Bareli	Smt Indira Nehru Gandhi	Cong.
454.	Rampur	Zulfiquar Ali Khan	Cong.
455.	Ramsanehighat (R)	Baij Nath Kureel	Cong.
456.	Robertsganj (R)	Ram Sawarup	Cong.

1	2	3	4
457.	Saharanpur (R)	Sunder Lal	Cong.
458.	Saidpur (R)	Shambhu Nath	Cong.
459.	Salempur	Tarkeshwar Pande	Cong.
460.	Shahabad	Dharamgaj Singh	Cong.
461.	Shahjahanpur	Jitendra Prasad	Cong.
462.	Sitapur	Jagdish Chandra Dikshit	Cong.
463.	Sultanpur	Kedar Nath Singh	Cong.
464.	Tehri Garhwal	Paripoornanand Painuli	Cong.
465.	Unnao	Ziaur Rahman Ansari	Cong.
466.	Varanasi	Rajaram Shastri	Cong.
	West Bengal (40)		
467.	Alipore	Indrajit Gupta	CPI
468.	Arambagh	Manoranjan Hazra	CPI (M)
469.	Asansol	Robin Sen	CPI (M)
470.	Ausgram (R)	Krishna Chandra Halder	CPI (M)
471.	Balurghat (R)	Rasendra Nath Barman	Cong.
472.	Bankura	Shankar Narayan Singh Deo	Cong.
473.	Barasat	Ranen Sen	CPI
474.	Barrackpore	Mohammad Ismail	CPI (M)
475.	Basirhat	A.K.M. Ishaque	Cong.
476.	Berhampore	Tridib Chaudhuri	RSP
477.	Birbhum (R)	Gadadhar Saha	CPI (M)
478.	Bolpur	Saradish Roy	CPI (M)
479.	Burdwan	Somnath Chatterjee	CPI (M)
480.	Calcutta North-East	Hirendra Nath Mukerjee	CPI
481.	Calcutta North-West	A.K. Sen	Cong.
482.	Calcutta South	P.R. Das Munsi	Cong.
483.	Contai	Samar Guha	SP
484.	Cooch Behar (R)	Benoy Krishna Daschowdhury	Cong.
485.	Darjeeling	Rattanlal Brahman	CPI (M)
486.	Diamond Harbour	Jyotirmoy Bosu	CPI (M)
487.	Ghatal	Jagadish Bhattacharyya	CPI (M)
488.	Hooghly	Bijoy Modak	CPI (M)
489.	Howrah	Samar Mukherjee	CPI (M)
490.	Jalpaiguri (R)	Tuna Oraon	Cong.
491.	Jangipur	Haji Lutfal Haque	Cong.
492.	Jhargram (R)	A.K. Kisku	Cong.
493.	Joynagar (R)	Sakti Kumar Sarkar	Cong.
494.	Katwa	Saroj Mukherjee	CPI (M)
495.	Krishnagar	R.P. Das	CPI (M)
496.	Malda	Dinesh Joarder	CPI (M)
497.	Mathurapur (R)	Madhuryya Haldar	CPI (M)
498.	Midnapore	Subodh Chandra Hansda	Cong.
499.	Murshidabad	Muhammed Khuda Buksh	Cong.
500.	Nabadwip (R)	Smt Bibha Ghosh Goswami	CPI (M)
501.	Purulia	Vacant	
502.	Raiganj	Smt Maya Ray	Cong.
503.	Serampore	Dinen Bhattacharya	CPI (M)
504.	Tamluk	Satish Chandra Samanta	Cong.
505.	Uluberia	Shyamaprasanna Bhattacharyya	CPI (M)
506.	Vishnupur (R)	Ajit Kumar Saha	CPI (M)
	Delhi (7)		
507.	Chandni Chowk	Smt Subhadra Joshi	Cong.
508.	Delhi Sadar	Vacant	
509.	East Delhi	H.K.L. Bhagat	Cong.
510.	Karol Bagh (R)	T. Sohan Lal	Cong.
511.	New Delhi	Smt Mukul Banerji	Cong.
512.	Outer Delhi	Chaudhry Dalip Singh	Cong.
513.	South Delhi	Shashi Bhushan	Cong.
	Goa, Daman and Diu (2)		
514.	Panjim	Purushottam Kakodkar	Cong.
515.	Marmagoa	Erasmo De Sequeira	BLD

1	2	3	4
	Other Union Territories (7)		
516.	Andaman & Nicobar Islands	K.R. Ganesh	Cong.
517.	Arunachal Pradesh (R)[1]	C.C. Gohain	Cong.
518.	Chandigarh	Amar Nath Vidyalankar	Cong.
519.	Dadra & Nagar Haveli (R)	Ramubhai Ravjibhai Patel	Cong.
520.	Lakshadweep (R)	P.M. Sayeed	Cong.
521.	Mizoram (R)	Sangliana	Cong.
522.	Pondicherry	Aravinda Bala Pajanor	ADMK
	Anglo-Indians (2)[1]		
523.	—	Frank Anthony	UIPG
524.	—	Smt Marjorie Godfrey	UIPG

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[1] Nominated by the President.

3 CIVILIAN AWARDS 1974

Bharat Ratna The award is made for exceptional work for the advancement of art, literature and science and in recognition of public service of the highest order.

Recipient None

Padma Vibhushan The award is made for exceptional and distinguished service in any field, including service rendered by government servants.

Recipients

1. Binode Behari Mukherjee, Painter, Dehra Dun
2. H.C. Sarin, formerly Adviser to the Governor of Andhra Pradesh, and Adviser to Governor of Gujarat
3. Niren De, Attorney-General for India, New Delhi
4. Dr Vijayendra Kasturi Ranga Varadaraja Rao, Economist, New Delhi

Padma Bhushan The award is made for distinguished service of a high order in any field, including service rendered by government servants.

Recipients

1. Dr Alice Marguerite Boner, Artist, Varanasi
2. Dr Arunachala Sreenivasan, Adviser, Atomic Energy Commission, Bombay
3. Bommireddi Narsimha Reddi, Film Producer, Madras
4. Prof Bhupati Mohan Sen, formerly Principal, Presidency College, Calcutta
5. Dr Camille Bulcke, Hindi Scholar, St. Xavier's College. Ranchi
6. Chintamani Kar, Sculptor, Visva Bharati, West Bengal
7. Dr Devanahalli Venkataramanaiah Gundappa, Kannada Writer, Bangalore
8. Dhirendra Nath Gangulee, Film Producer, Calcutta
9. Habib-ur Rahman, Chief Architect, Central Public Works Department, New Delhi
10. Dr Hasmukh Dhirajlal Sankalia, Director, Deccan College, Poona
11. Thakur Jaideva Singh, Musicologist, Lucknow
12. Jayant Pandurang Naik, Educationist, New Delhi
13. Bishop John Richardson, Bishop of Car Nicobar, Andaman and Nicobar Islands
14. Khushwant Singh, Editor, Illustrated Weekly of India, Bombay
15. Smt Mogubai Kurdikar, Musician, Bombay
16. Dr Moti Chandra, Director, Prince of Wales Museum, Bombay
17. Dr Ram Kumar Caroli, Cardiologist, Willingdon Hospital, New Delhi
18. Dr Raman Viswanathan, Professor, Vallabhbhai Patel Chest Institute, Delhi
19. Pandit Sukhlalji Sanghji Sanghavi, Jain Scholar, Ahmadabad
20. Prof Toppur Seethapathy Sadasivan, Botanist, Madras
21. Dr Vasant Shankar Huzurbazar, Senior Professor and Head of the Department of Mathematics and Statistics, Poona University, Poona

Padma Shri The award is made for distinguished service in any field, including service rendered by government servants.

Recipients

1. Qazi Abdul Sattar, Reader in Urdu, Aligarh Muslim University, Aligarh
2. Achyut Purushottam Kanvinde, Architect, New Delhi

3. Ali Hasan *alias* Kalloo Hafiz, Master Weaver, Varanasi
4. Anant Gopal Sheorey, Journalist, Nagpur
5. Baldev Raj Chopra, Engineer Expert, Indian Technical Mission, Kabul
6. Dr Chintamani Nagesh Ramachandra Rao, Professor of Chemistry and Dean of Research and Development, Indian Institute of Technology, Kanpur
7. Devki Nandan Pande, Social Worker, Almora, Uttar Pradesh
8. Prof Dinesh Mohan, Director, Central Building Research Institute, Roorkee
9. Emani Sankara Sastri, Chief Producer, Karnatak Music, All India Radio, New Delhi
10. Ghulam Qadir Lalla, Carpet Designer, Srinagar
11. Girish Karnad, Director, Film and Television Institute of India, Poona
12. Gopal Chandra Dutt, formerly Joint Director, Intelligence Bureau, New Delhi
13. Hanamant Narhar Joshi 'Sudhanshu', Social Worker, Audumber, Sangli, Maharashtra
14. Dr Hari Narain, Director, National Geophysical Research Institute, Hyderabad
15. Himansu Kumar Banerjee, Chief Engineer (Construction), Eastern Railway, Calcutta
16. Indra Kumar Gupta, Chairman and Managing Director, Indian Telephone Industries Ltd., Bangalore
17. Ishrat Ali Siddiqui, Journalist, Lucknow
18. Dr Jagmohan Lal Caroli, Physician, Meerut
19. Dr Jogindra Lal Gupta, Plastic Surgeon, Safdarjung Hospital, New Delhi
20. Lt.-Commander Joginder Singh, Mountaineer, Indo-Tibetan Border Police, New Delhi
21. Smt Jothi Vencatachellum, Social Worker, Madras
22. Dr Kadiyala Ramachandra, Professor of Medicine, Madras Medical College, Madras
23. Kaifi Azmi, Urdu Poet, Bombay
24. Kalluri Gopal Rao, formerly Chairman, Andhra Bank Ltd., Bangalore
25. Kelu Charan Mohapatra, Odissi Guru, Cuttack
26. Kirpal Singh Shekhawat, Sculptor, Jaipur
27. Kooram Chakravarthy Kannan, Radio/Radar Technician, Hindustan Aeronautics Ltd., Hyderabad
28. Dr Lala Surajnandan Prasad, Paediatrician, Patna
29. Dr Maheswar Neog, Assamese Writer, Gauhati
30. Dr Mani Kumar Chhetri, Cardiologist, Calcutta
31. Mani Madhava Chakyar, Dance Teacher, Ottapalam, Kerala
32. Smt Manik Amar Varma, Musician, Bombay
33. Manjapara Devesa Bhagavathar Ramanathan, Principal, College of Music, Adyar, Madras
34. Smt Masuma Begum, Social Worker, Secunderabad
35. Smt Maryam Begum, Radio Artiste, Radio Kashmir, Srinagar
36. Dr Mysore Shrikanta Pandit Nilakanta Rao, Director, Gandhi Memorial Leprosy Foundation, Wardha, Maharashtra
37. Dr Nagarur Gopinath, Professor of Cardio-Thoracic and Vascular Surgery, All India Institute of Medical Sciences, New Delhi
38. Smt Nina Ripjit Singh *alias* Naina Devi, Musician, New Delhi
39. Smt Nutan Bahl, Film Artiste, Bombay
40. Dr Waman Dattatraya Patwardhan, Director, Armament Research and Development Establishment, Poona
41. Pushkar Nath Bhan, Producer, Radio Kashmir, Srinagar
42. Smt Queenie H.C. Captain, Social Worker, Bombay
43. Raj Kumar Khanna, Honorary Secretary, All India Lawn Tennis Association, New Delhi
44. Ram Prasad Choudhary Jaiswal, Bamboo Tubewell-Inventor, Saharsa, Bihar
45. Satyanarayan Rajguru, Epigraphist, Ganjam, Orissa
46. Dr Shiva Mangal Singh 'Suman', Hindi Poet, Ujjain
47. Kum Sitimon Sawian, Social Worker, Puri
48. Sitaram Rao Valluri, Director, National Aeronautical Laboratory, Bangalore
49. Som Nath Sadhu, Extension Officer, Radio Kashmir, Srinagar
50. Dr Shreeram Balkrishna Lagoo, Marathi Stage Actor, Bombay
51. Subramanya Iyer Balakrishnan, Joint Secretary, Ministry of Home Affairs, New Delhi
52. Smt Suchitra Mitra, Reader in Music, Rabindra Bharati University, Calcutta
53. Dr Syed Zahoor Qasim, Director, National Institute of Oceanography, Panaji
54. Thiruvizhimazhalai Subramania Pillai, Nadaswaram Vidwan, Thanjavur
55. Father Thomas V. Kunnunkal, Principal, St. Xavier's School, Delhi
56. Dr Venkatarama Narayanaswami, Ayurvedic Physician, Madras
57. Smt Bindhya Basini Devi, Music Producer, All India Radio, Patna

4 GALLANTRY AWARDS 1974

Param Vir Chakra	The highest decoration for valour, the Param Vir Chakra, is awarded for the most conspicuous bravery or some daring or pre-eminent act of valour of self-sacrifice in the presence of the enemy, whether on land, at sea or in the air.
	Recipient: None
Maha Vir Chakra	The Maha Vir Chakra, the second highest decoration, is awarded for acts of conspicuous gallantry in the presence of the enemy, whether on land, at sea or in the air.
	Recipient: None
Vir Chakra	The Vir Chakra is third in the order of awards given for acts of gallantry in the presence of the enemy, whether on land, at sea or in the air.
	Recipients: 5
Ashok Chakra	This medal is awarded for the most conspicuous bravery or some daring or pre-eminent act of valour or self-sacrifice on land, at sea or in the air.
	Recipients: 2
Kirti Chakra	This decoration is awarded for conspicuous gallantry.
	Recipients: 3
Shaurya Chakra	This decoration is awarded for an act of gallantry.
	Recipients: 15

5 DISTINGUISHED SERVICE AWARDS 1974

Param Vishisht Seva Medal	The Param Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service of the 'most exceptional' order.
	Recipients: 8
Ati Vishisht Seva Medal	The Ati Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service of 'exceptional' order.
	Recipients: 28
Vishisht Seva Medal	The Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service.
	Recipients: 52

6 UNIVERSITIES IN INDIA[1]

As on 1 May 1974

	Name, location and year of establishment	Type	Number of Colleges[2]	Number of Students[3]
	1	2	3	4
1.	Agra University, Agra (1927)	Affiliating	79	56,501
2.	Aligarh Muslim University, Aligarh (1921)	Unitary	4	9,336
3.	Allahabad University, Allahabad (1887)	Unitary	6	17,006
4.	Andhra University, Waltair (1926)	Affiliating	113	80,119
5.	Andhra Pradesh Agricultural University, Hyderabad (1964)	Unitary	6	2,000
6.	Annamalai University, Annamalainagar (1929)	Unitary	N.A.	5,899
7.	Assam Agricultural University, Jorhat (1968)	Unitary	2	830
8.	Awadesh Pratap Singh University, Rewa (1968)	Affiliating	49	11,683
9.	Banaras Hindu University, Varanasi (1916)	Unitary	7	14,539
10.	Bangalore University, Bangalore (1964)	Federal	55	42,596
11.	Berhampur University, Berhampur (1967)	Affiliating	19	6,947
12.	Bhagalpur University, Bhagalpur (1960)	Affiliating	46	42,578
13.	Bhopal University, Bhopal (1970)	Affiliating	22	14,303
14.	Bihar University,Muzaffarpur (1952)	Affiliating	66	73,802
15.	Bombay University, Bombay (1857)	Federal	82	1,02,436
16.	Burdwan University, Burdwan (1960)	Affiliating	52	57,520
17.	Calcutta University, Calcutta (1857)	Affiliating	218	2,44,584
18.	Calicut University, Calicut (1968)	Affiliating	64	55,661
19.	Cochin University, Cochin (1971)	Federal	—	306
20.	Delhi University, Delhi (1922)	Federal	61	64,707
21.	Dibrugarh University, Dibrugarh (1965)	Affiliating	45	23,844
22.	Garhwal University, Srinagar (Garhwal) (1973)	Affiliating	N.A.	N.A.
23.	Gauhati University, Gauhati (1948)	Affiliating	134	65,734
24.	Gobind Ballabh Pant University of Agriculture and Technology, Pantnagar (1960)	Unitary	6	1,942
25.	Gorakhpur University, Gorakhpur (1957)	Affiliating	91	48,173
26.	Gujarat Agricultural University, Ahmadabad (1972)	Unitary	5	N.A.
27.	Gujarat Ayurveda University, Jamnagar (1968)	Affiliating	10	2,774
28.	Gujarat University, Ahmadabad (1949)	Affiliating	136	78,769
29.	Guru Nanak University, Amritsar (1969)	Affiliating	66	46,184
30.	Haryana Agricultural University, Hisar (1970)	Unitary	6	1,129
31.	Himachal Pradesh University, Simla (1970)	Affiliating	35	14,720
32.	Indira Kala Sangeet University, Khairagarh (1956)	Affiliating	21	27[4]
33.	Indore University, Indore (1964)	Federal	24	16,853
34.	Jabalpur University, Jabalpur (1957)	Affiliating	28	18,658
35.	Jadavpur University, Calcutta (1955)	Unitary	2	4,305
36.	Jammu University, Jammu (1969)	Affiliating	16	10,506
37.	Jawaharlal Nehru Krishi Vishwavidyalaya Jabalpur, (1964)	Unitary	9	1,777
38.	Jawaharlal Nehru Technological Institute, Hyderabad (1972)	Federal	5	N.A.

39.	Jawaharlal Nehru University, New Delhi (1968)	Unitary	—	505
40.	Jiwaji University, Gwalior (1964)	Affiliating	44	22,520
41.	Jodhpur University, Jodhpur (1962)	Unitary	2	9,528
42.	Kalyani University, Kalyani (1960)	Affiliating	3	1,924
43.	Kameshwar Singh Darbhanga Sanskrit Vishwavidyalaya, Darbhanga (1961)	Affiliating	47	N.A.
44.	Kanpur University, Kanpur (1966)	Affiliating	79	46,564
45.	Karnatak University, Dharwar (1949)	Affiliating	106	68,372
46.	Kashi Vidyapith, Varanasi (1963)[5]	Unitary	—	2,192
47.	Kashmir University, Srinagar (1948)	Affiliating	23	16,239
48.	Kerala University, Trivandrum (1937)	Affiliating	103	1,24,644
49.	Kerala Agricultural University, Trichur (1971)	Unitary	2	405
50.	Konkan Krishi Vidyapith, Dapoli (1972)	Unitary	2	N.A.
51.	Kumaon University, Nainital (1973)	Affiliating	—	N.A.
52.	Kurukshetra University, Kurukshetra (1956)	Unitary	4	5,354
53.	Lucknow University, Lucknow (1921)	Unitary	17	24,852
54.	Madras University, Madras (1857)	Affiliating	157	1,46,690
55.	Madurai University, Madurai (1966)	Affiliating	94	63,559
56.	Maharaja Sayaji Rao University of Baroda, Vadodara (1949)	Unitary	6	17,308
57.	Magadh University, Bodh Gaya (1962)	Affiliating	49	58,809
58.	Mahatma Phule Krishi Vidyapith, Rahuri, (1968)	Unitary	5	2,767
59.	Marathwada University, Aurangabad (1958)	Affiliating	82	44,156
60.	Marathwada Krishi Vidyapith, Parbhani (1972)	Unitary	2	N.A.
61.	Meerut University, Meerut (1966)	Affiliating	57	47,133
62.	Mithila University, Darbhanga (1972)	Affiliating	49	N.A.
63.	Mysore University, Mysore (1916)	Affiliating	125	76,429
64.	Nagpur University, Nagpur (1923)	Affiliating	139	84,785
65.	North Bengal University, Raja Ram Mohanpur (Darjeeling) (1962)	Affiliating	31	23,111
66.	North Eastern Hill University, Shillong (1973)	Affiliating	—	N.A.
67.	Orissa University of Agriculture and Technology, Bhubaneswar (1962)	Unitary	4	1,282
68.	Osmania University, Hyderabad (1918)	Affiliating	94	63,983
69.	Panjab University, Chandigarh (1947)	Affiliating	178	1,26,282
70.	Panjab Agricultural University, Ludhiana (1962)	Unitary	5	2,317
71.	Patna University, Patna (1917)	Unitary	11	13,317
72.	Poona University, Poona (1949)	Affiliating	116	78,245
73.	Panjabi University, Patiala (1962)	Affiliating	45	26,440
74.	Punjabrao Krishi Vidyapith, Akola (1969)	Affiliating	7	4,051
75.	Rabindra Bharati University, Calcutta (1962)	Affiliating	33	3,501[4]
76.	Rajasthan University, Jaipur (1947)	Affiliating	141	66,192
77.	Rajindra Agricultural University Patna (1970)	Unitary	5	1,136
78.	Ranchi University, Ranchi (1960)	Affiliating	58	40,080
79.	Ravi Shankar University, Raipur (1964)	Affiliating	57	23,955
80.	Roorkee University, Roorkee (1949)	Unitary	—	1,959

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[1] Appendix to Chapter 5. [2] Figures relate to 1972-73. [3] Figures relate to 1971-72. N.A.—Not available.

[4] Figures relate to the university campus only.

[5] This is the year in which the Vidyapith was 'deemed' as a university; now it is a 'State university.'

1	2	3	4
81. Sambalpur University, Sambalpur (1967)	Affiliating	29	12,946
82. Sardar Patel University, Vallabh Vidyanagar (1955)	Affiliating	18	12,459
83. Sagar University, Sagar (1946)	Affiliating	52	20,291
84. Saurashtra University, Rajkot (1965)	Affiliating	53	30,491
85. Shivaji University, Kolhapur (1962)	Affiliating	90	53,356
86. Shrimati Nathibai Damodar Thukersey Women's University, Bombay (1951)	Affiliating	24	12,502
87. South Gujarat University, Surat (1967)	Affiliating	31	20,519
88. Sri Venkateswara University, Tirupati (1954)	Affiliating	44	31,072
89. Tamil Nadu Agricultural University, Coimbatore (1971)	Unitary	3	1,122
90. Udaipur University, Udaipur (1962)	Affiliating	13	7,478
91. University of Agricultural Sciences, Bangalore (1964)	Unitary	6	2,036
92. Utkal University, Bhubaneswar (1943)	Affiliating	52	34,415
93. Varanaseya Sanskrit University, Varanasi (1958)	Affiliating	119	967[1]
94. Vikram University, Ujjain (1957)	Affiliating	44	16,217
95. Visva Bharati University, Santiniketan (1951)	Unitary	8	1,281
Institutions deemed to be universities			
1. Birla Institute of Technology & Science, Pilani (1964)			2,113
2. Gujarat Vidyapith, Ahmadabad (1963)			568
3. Gurukul Kangri, Hardwar (1962)			372
4. Indian Agricultural Research Institute, New Delhi (1958)			410
5. Indian Institute of Science, Bangalore (1958)			939
6. Indian School of Mines, Dhanbad (1967)			278
7. Jamia Millia Islamia, New Delhi (1962)			1,002
8. Tata Institute of Social Sciences, Bombay (1964)			146
9. Central Institute of English and Foreign Languages, Hyderabad (1973)			N.A.

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[1] Figures relate to the University Campus only.

7 LALIT KALA AKADEMI AWARDS 1973[1]

Painting

1. Satish Gujral
2. Anupam Sud
3. Jeram Patel
4. G.R. Santosh
5. A. Ramachandran

8 SANGEET NATAK AKADEMI AWARDS 1973[1]

Music	1.	Smt Gangu Bai Hangal	Hindustani (Vocal)
	2.	B.S. Raja Iyengar	Karnatak (Vocal)
	3.	Emani Sankara Sastry	Karnatak (Instrumental-Veena)
	4.	Vishnudass Shirali	Creative Music
Drama	1.	Ajitesh Bandyopadhyay	Direction
	2.	Smt Sova Sen	Acting (Bengali)
	3.	Kalyanam Raghuramaiah	Acting (Telugu)
	4.	Dadu Raghu Sarode (Indurikar)	Traditional Theatre (Tamasha)
Dance	1.	Smt Kumbakonam K. Bhanumathi	Bharata Natyam
	2.	Vellinazhi K. Nanu Nayar	Kathakali
	3.	Kavingal Chathunni Panicker	Kathakali
	4.	Leichombam Koireng Singh	Manipuri

9 SAHITYA AKADEMI AWARDS 1973[1]

Language	Book	Author
Gujarati	Kavini Shraddha (Critical Essays)	Umashankar Joshi
Hindi	Aalok Parva (Essays)	Hazari Prasad Dwivedi
Kannada	Aralu Maralu (Poetry)	V. Sitaramaiah
Maithili	Naika Banjara (Novel)	Braj Kishore Verma 'Manipadma'
Malayalam	Balidarsanam (Poetry)	Akkitham Achyutan Nambudiri
Manipuri	Imphal Amasung Magi Ishing Nungshitki Phibam (Novel)	Pacha Meitei
Marathi	Kajalmaya (Short Stories)	Gurunath Abaji Kulkarni
Oriva	Samudra Snana (Poetry)	Guru Prasad Mohanty
Punjabi	Kal, Aj Te Bhalak (Play)	Harcharan Singh
Sanskrit	Sritilakayasornavah (Poetry)	(Late) Madhav Shrihari Aney
Sindhi	Pyar Ji Pyas (Novel)	Govind Malhi
Tamil	Verukku Neer (Novel)	Smt Rajam Krishnan
Telugu	Mantalu Manavadu (Poetry)	C. Narayana Reddy

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[1] Appendix to Chapter 6.

10 NATIONAL AWARDS FOR FILMS 1973[1]

Category	Award	Film	Language	Awardee
ALL INDIA FILMS				
Best feature film	President's gold medal and cash prize of Rs 40,000	Nirmalyam	Malayalam	M.T. Vasudevan Nair (Producer and Director)
Second best feature film	Rs 15,000 and a silver medal	Kaadu	Kannada	K.N. Narayan and G.N. Lakshmipathy (Producers). Also, Rs 10,000 and a silver medal to Girish Karnad (Director)
Best feature film on national integration	Rs 30,000 and a silver medal	Garm Hava	Urdu	Unit 3 MM (Producers). Also, Rs 10,000 and a silver medal to M.S. Sathyu (Director)
Excellence in direction	Rs 20,000 and a silver medal	Duvidha	Hindi	Mani Kaul
Excellence in black & white cinematography	Rs 5,000 and a silver medal	27 Down	Hindi	Apurba Kishore Bir
Excellence in colour cinematography	Rs 5,000 and a silver medal	Ashani Sanket	Bengali	Soumendu Roy
Best actor	Bharat (A figurine)	Nirmalyam	Malayalam	P.J. Anthony
Best actress	Urvashi (A figurine)	Kaadu	Kannada	Nandini
Best child actor/actress	Silver medal	Kaadu	Kannada	G.S. Nataraj
Best male playback singer	Silver medal	Gayatri	Malayalam	K.J. Jesudos
Best music director	Rs 10,000 and a silver medal	Ashani Sanket	Bengali	Satyajit Ray
Best screenplay	Rs 10,000 and a silver medal	Padatik	Bengali	Mrinal Sen and Ashish Burman
Best story	Rs 10,000 and a silver medal	Garm Hava	Urdu	Ismat Chugtai and Kaifi Azmi
Best 'information' film	Rs 5,000 and a silver medal	The Flame Burns Bright	English	Ashis Mukherjee (Producer and Director) Films Division

Best social instructional film	Rs 5,000 and a silver medal	Sath Kuch Na Jayega	Hindi	Director of Information, Government of Gujarat
Best social documentation film	Rs 5,000 and a silver medal	Land of Krishna	English	G.L. Bhardwaj (Producer and Director)
Best promotional film (commercial)	Silver medal	Delhi—The City Beautiful	English	Jagdish Banerjee (Producer and Director)
Best promotion film (non-commercial)	Silver medal	Fibre—The Fabric of Life	English	Khadi & Village Industries Commission (Producers). Also, a silver medal to G.L. Bhardwaj (Director)
Best experimental film	Rs 5,000 and a silver medal	Homi Bhabha—A Scientist in Action	English	Jagat Murari (Producer) Films Division. Also, Rs 4,000 and a silver medal to K. Vishwanath (Director)
FILMS IN REGIONAL LANGUAGES[2]	Rs 10,000 and a silver medal	Mamta	Assamese	Nalin Dowerah, Prafulla Dutta and Shiba Thakur (Producers). Also, Rs 5,000 and a silver medal to Nalin Dowerah (Director)
	—do—	Ashani Sanket	Bengali	Sarbani Bhattacharya (Producer). Also, Rs 5,000 and a silver medal to Satyajit Ray (Director)
	—do—	27 Down	Hindi	Awatar Krishna Kaul (Producer and Director)
	—do—	Abachurina Post Office	Kannada	Patre C. Vinayak (Producer). Also, Rs 5,000 to N. Lakshminarayan (Director)
	—do—	Gayatri	Malayalam	A.R. Sreedharan Elayidom and P.B. Ashram (Producers). Also, Rs 5,000 and a silver medal to P.N. Menon (Director)
	—do—	Dikkatra Parvathi	Tamil	Navtarang (Producers). Also, Rs 5,000 and a silver medal to Singitam Srinivasa Rao (Director)

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[1] Appendix to Chapter 10.

[2] The awards are for the best feature films.

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Correction: On page two of the illustrations appearing between pages 128 and 129, the caption of the Davis Cup tie inadvertently describes it as 'zonal final'. This may be read as 'inter-zone semi-final'.

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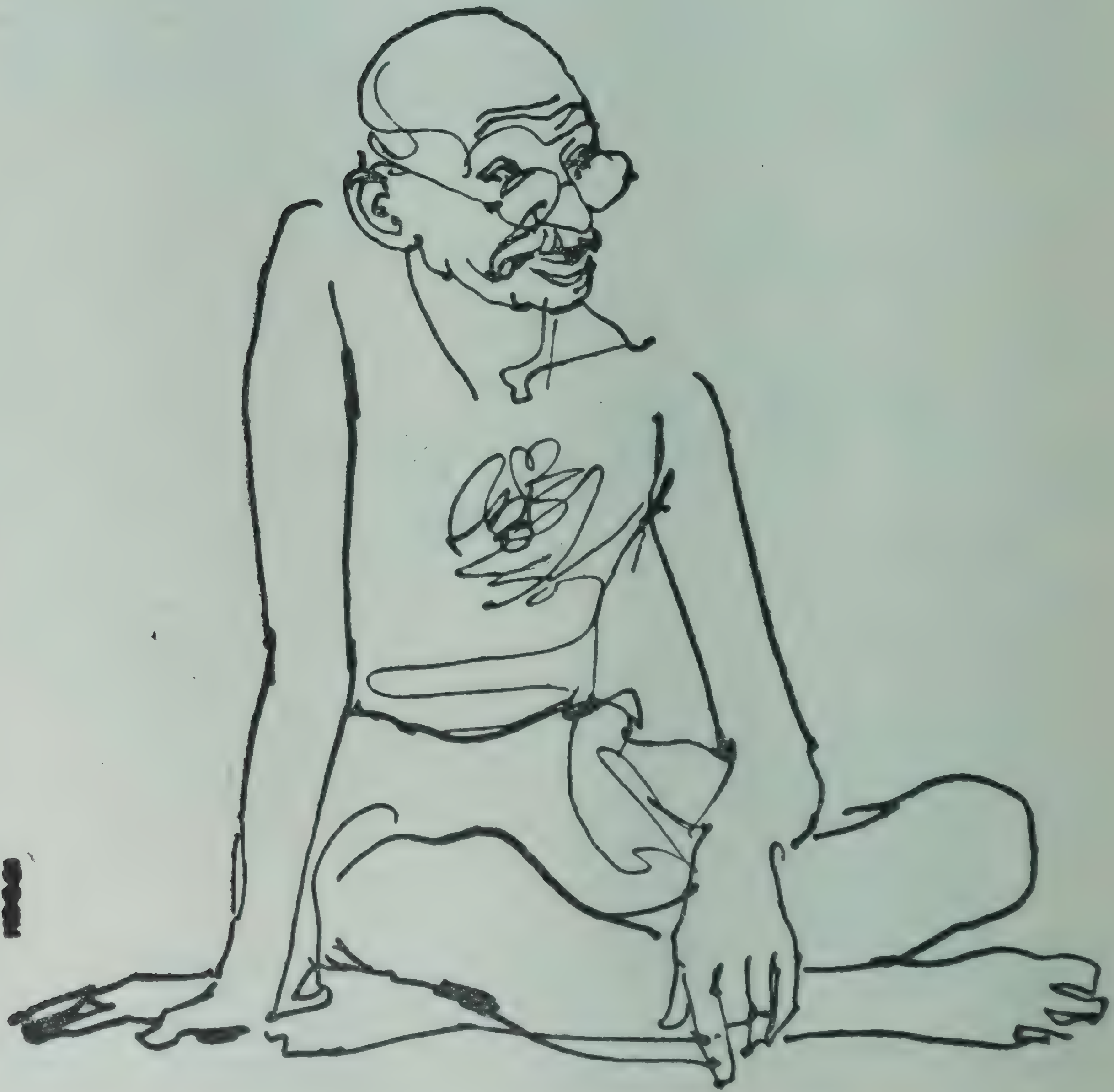

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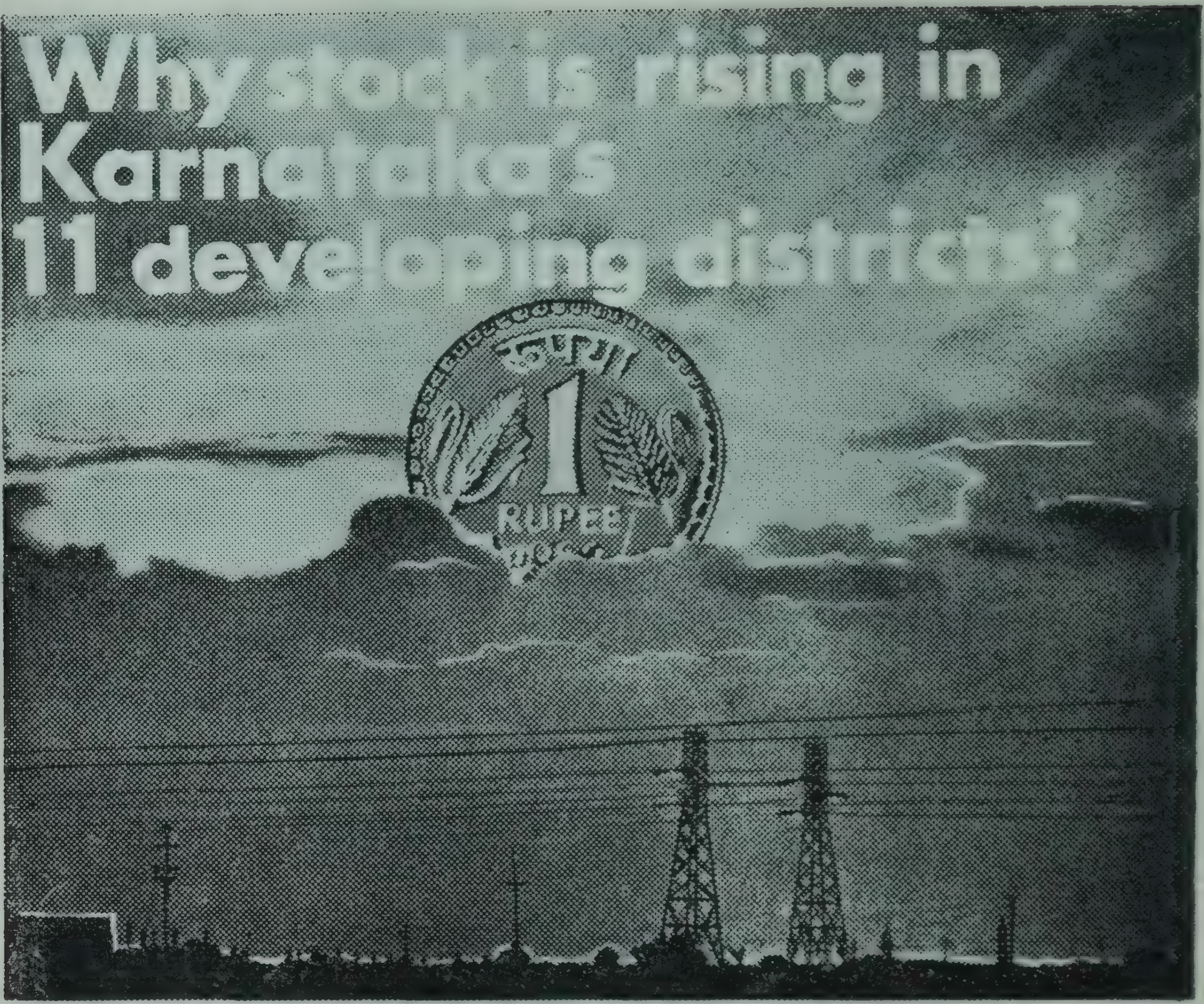

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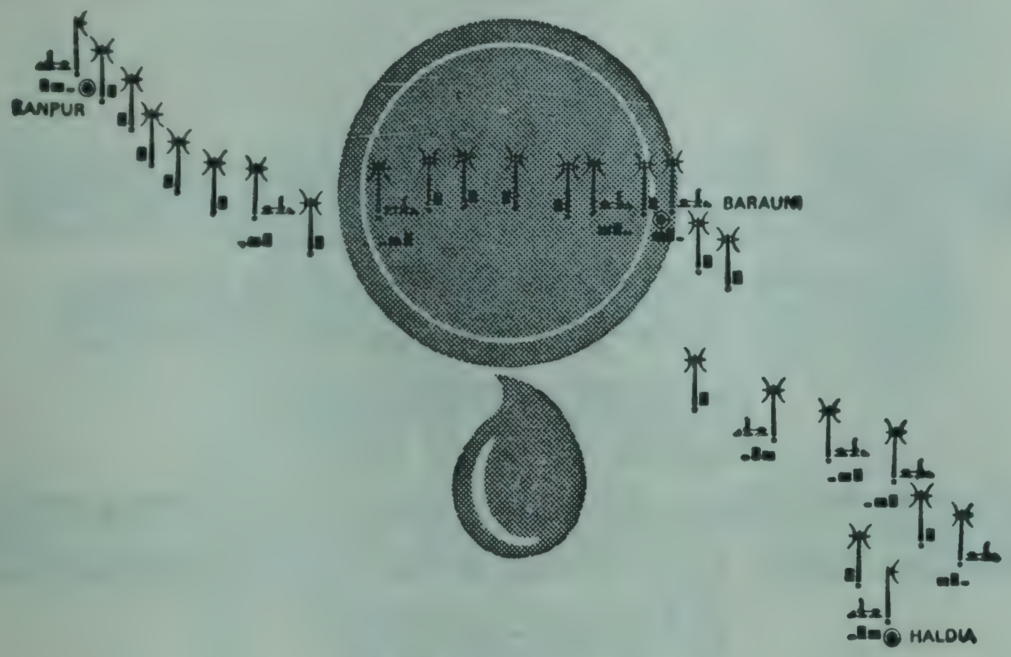

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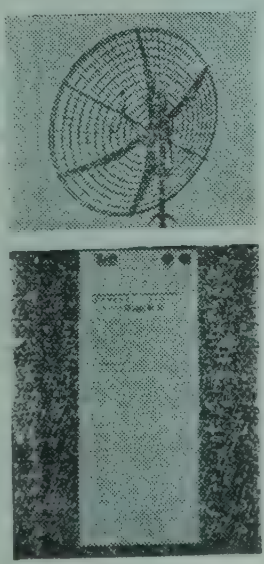

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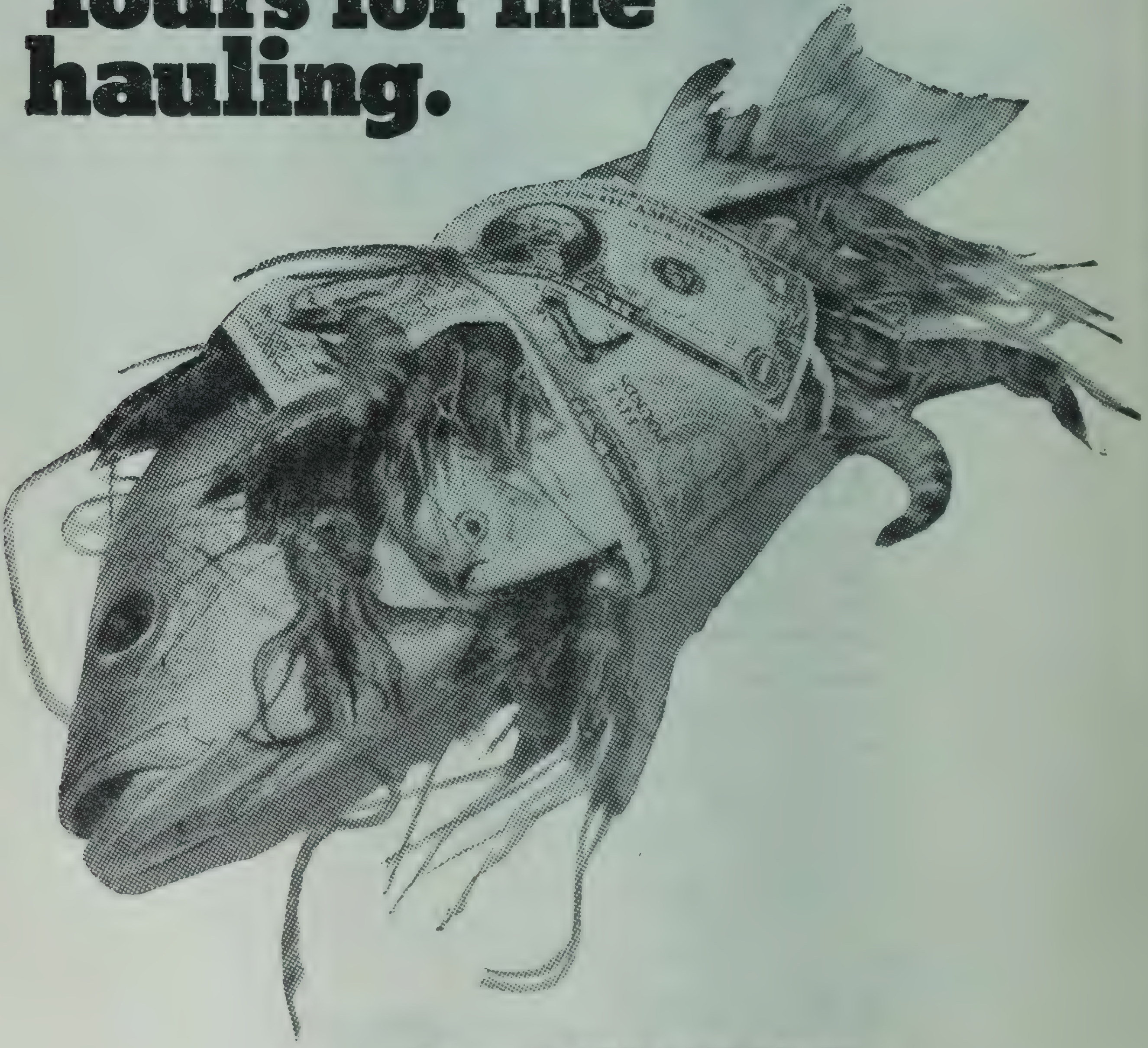

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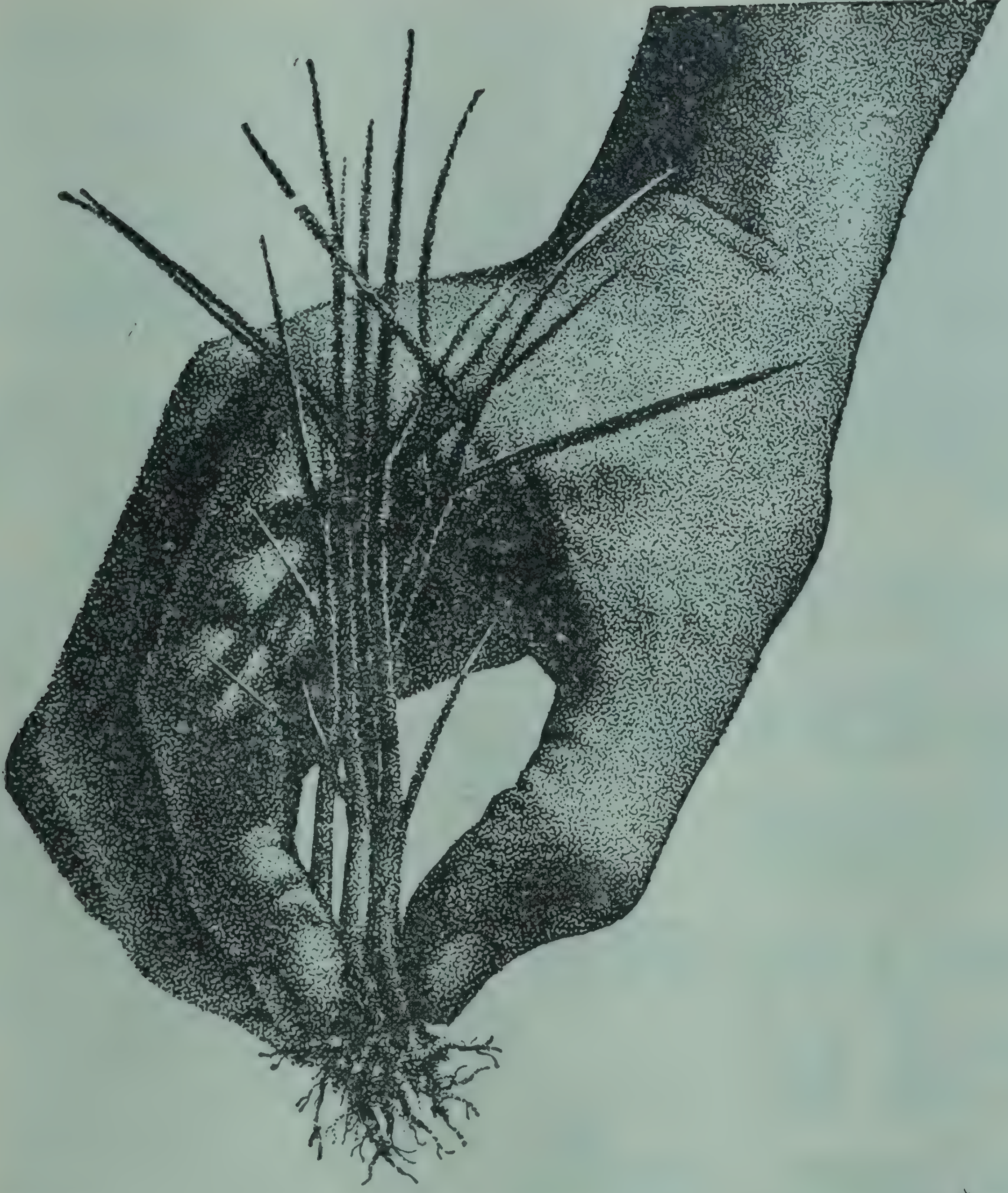

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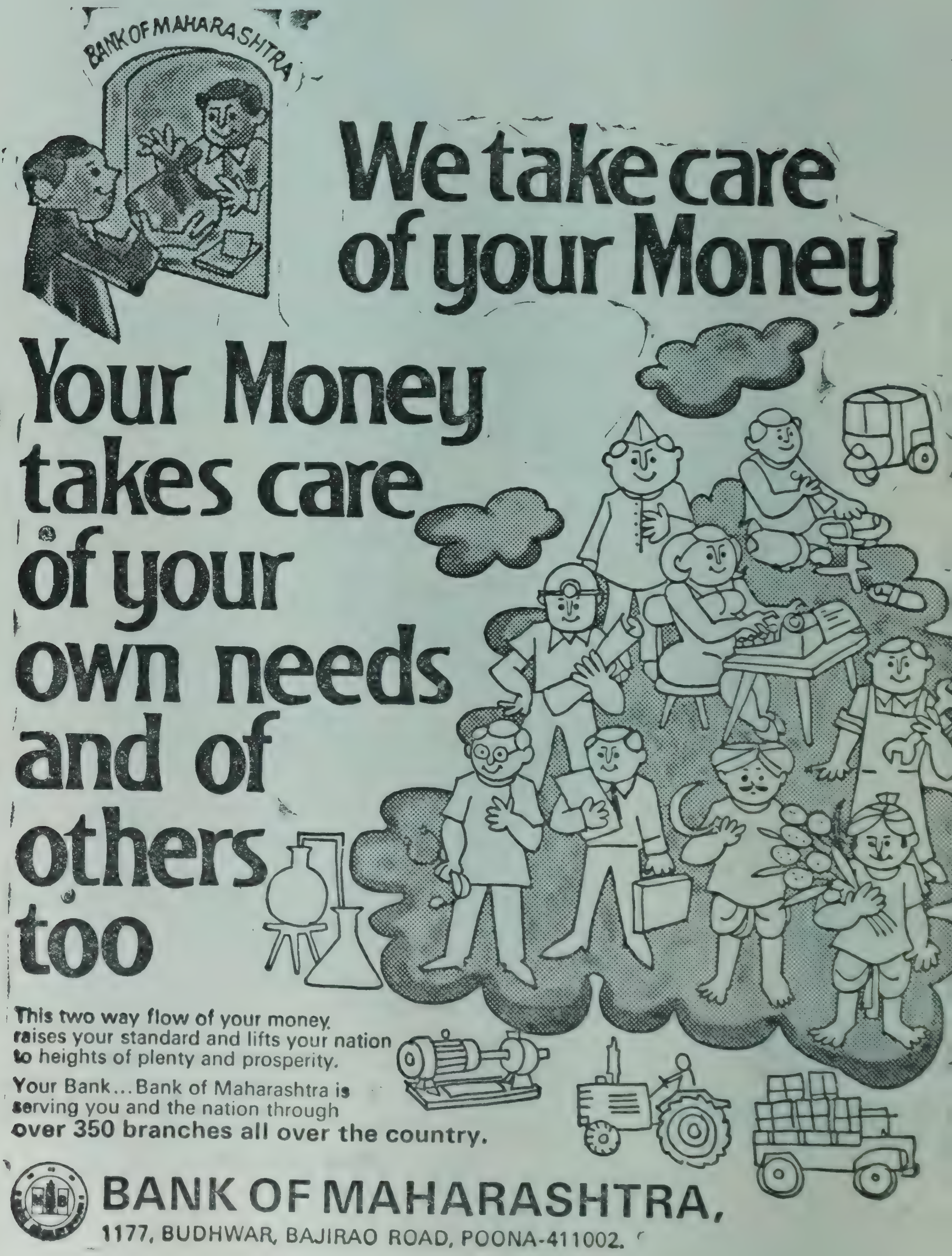

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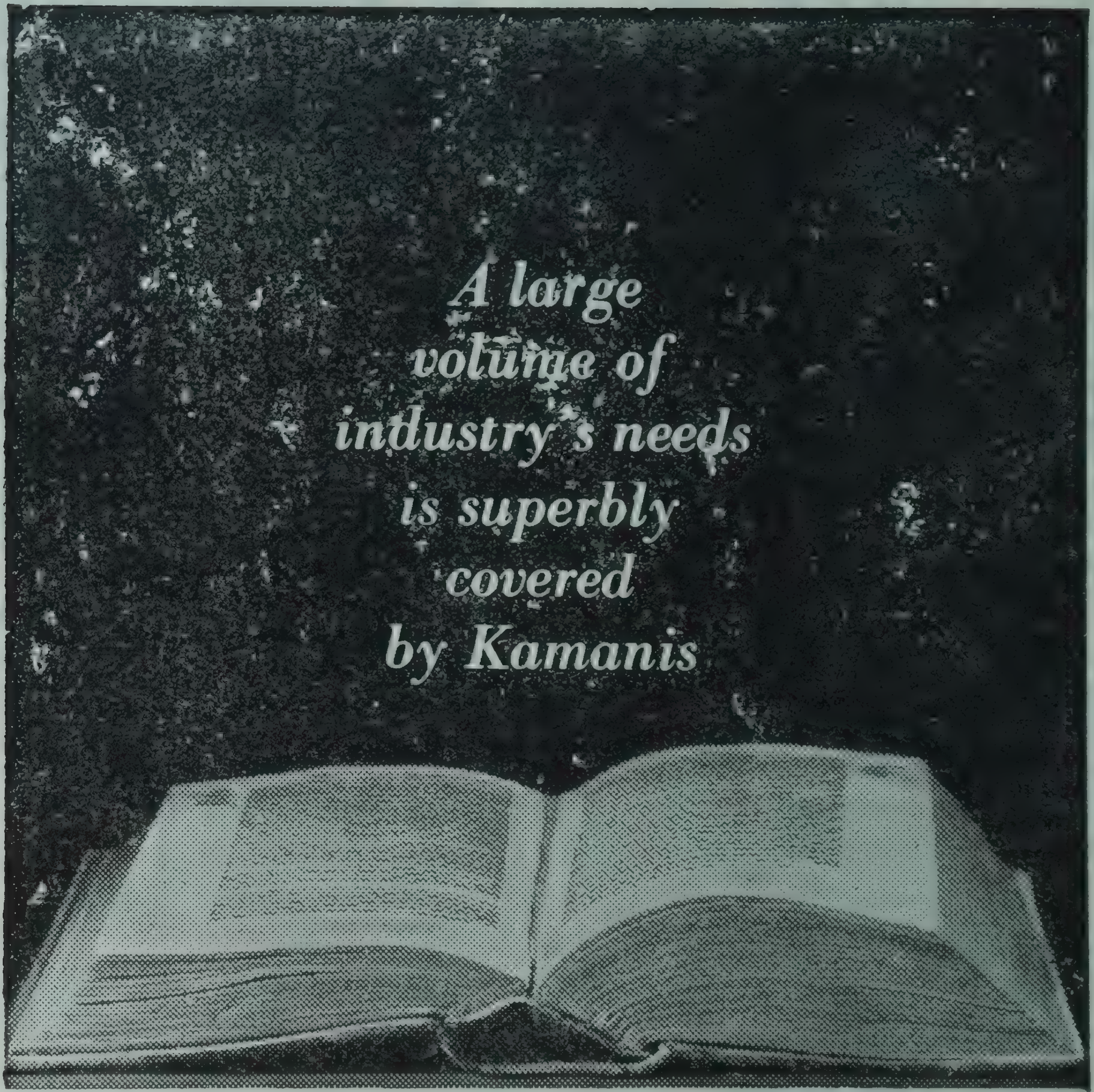

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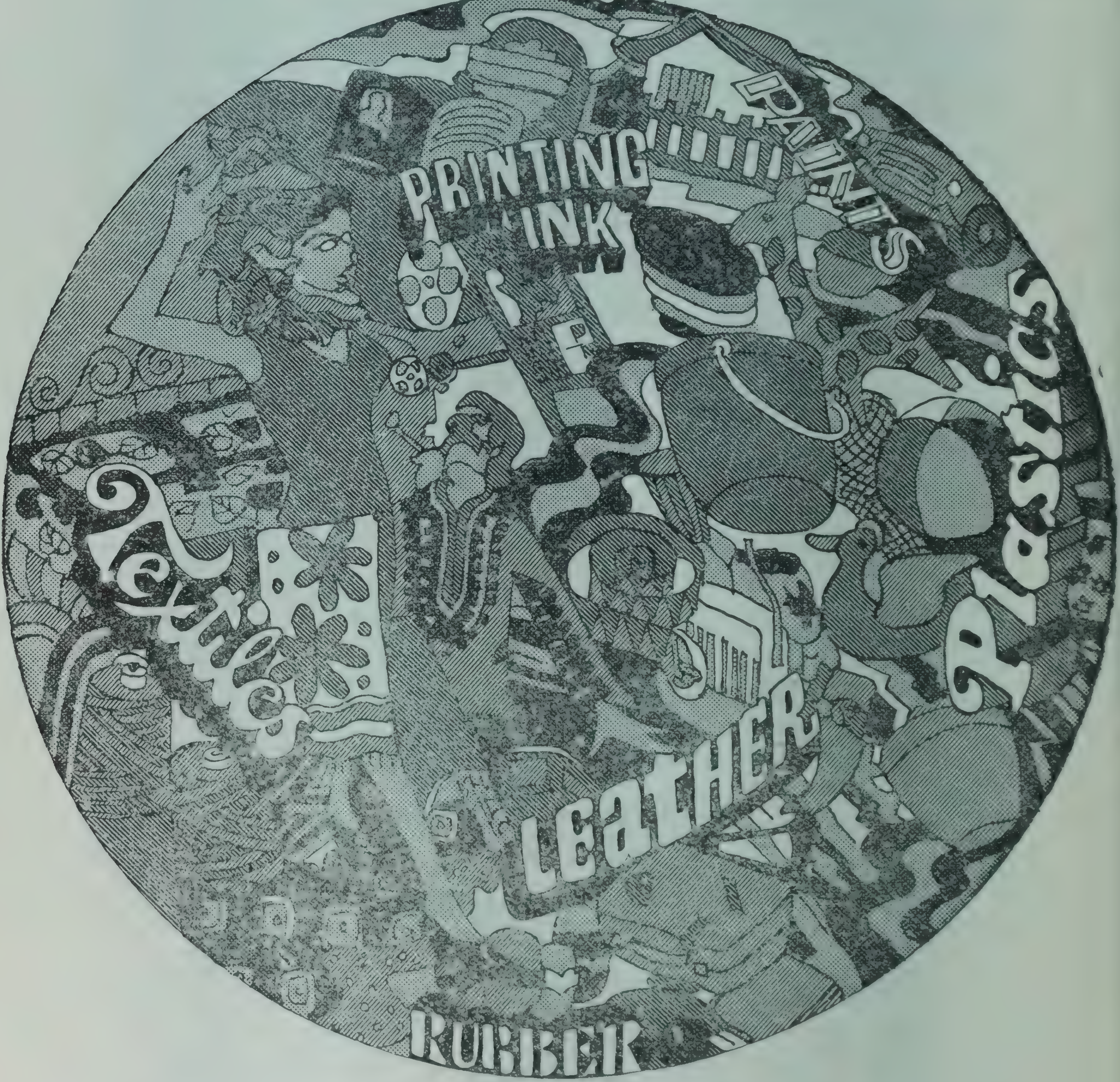

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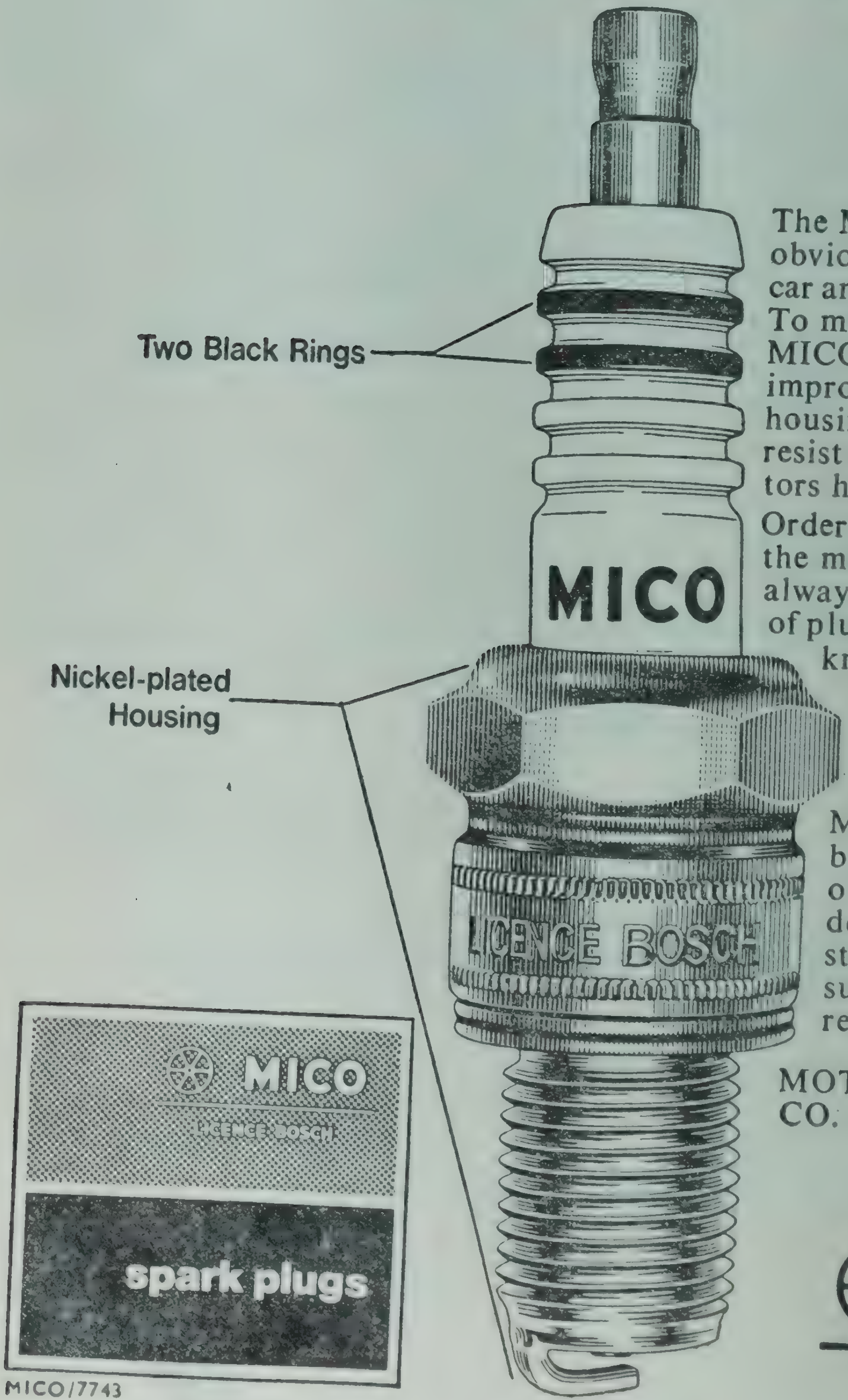

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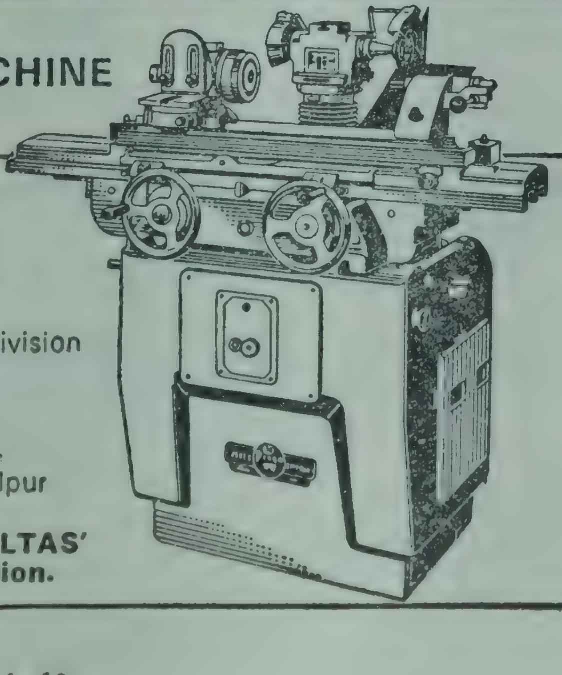

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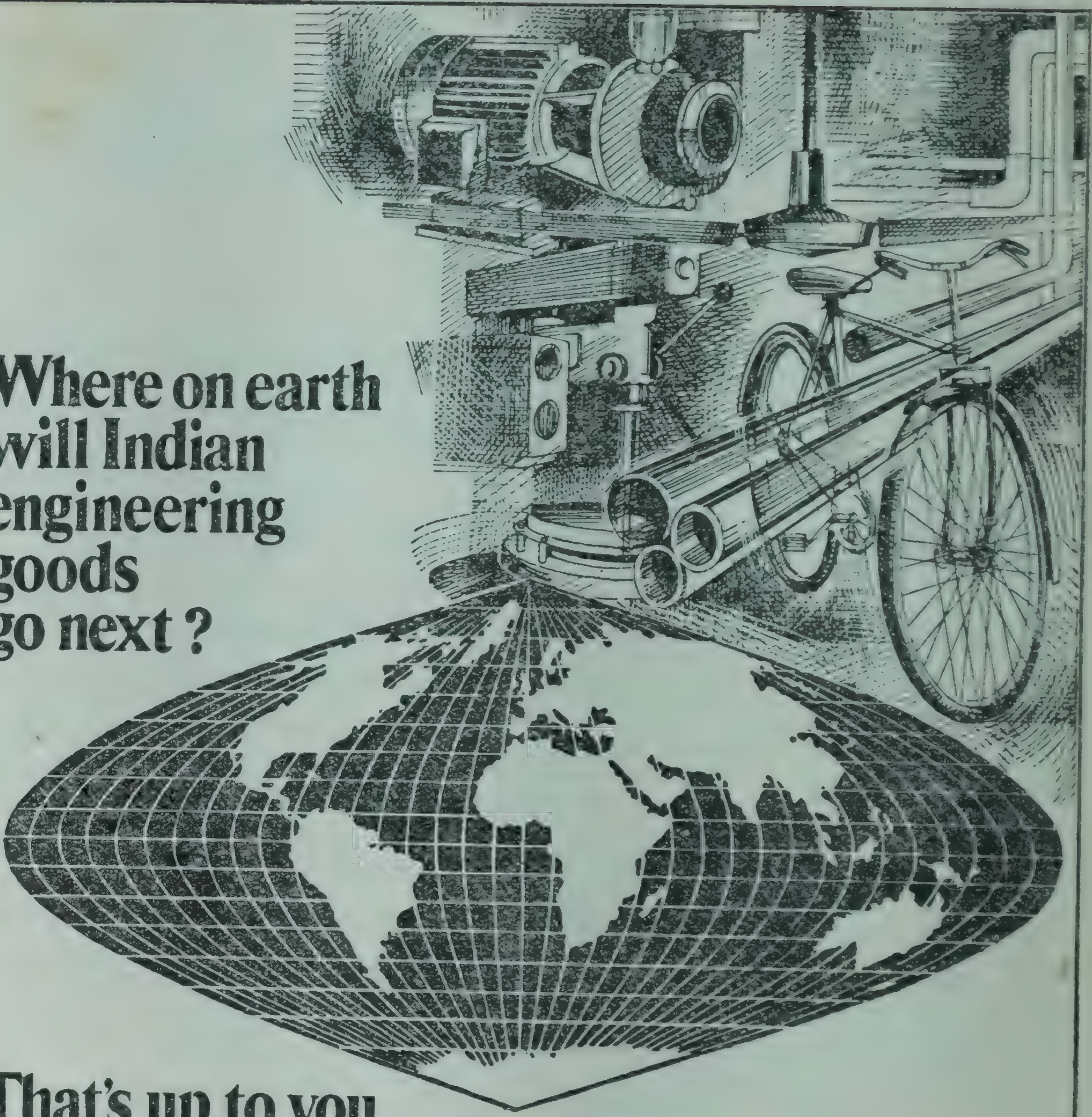

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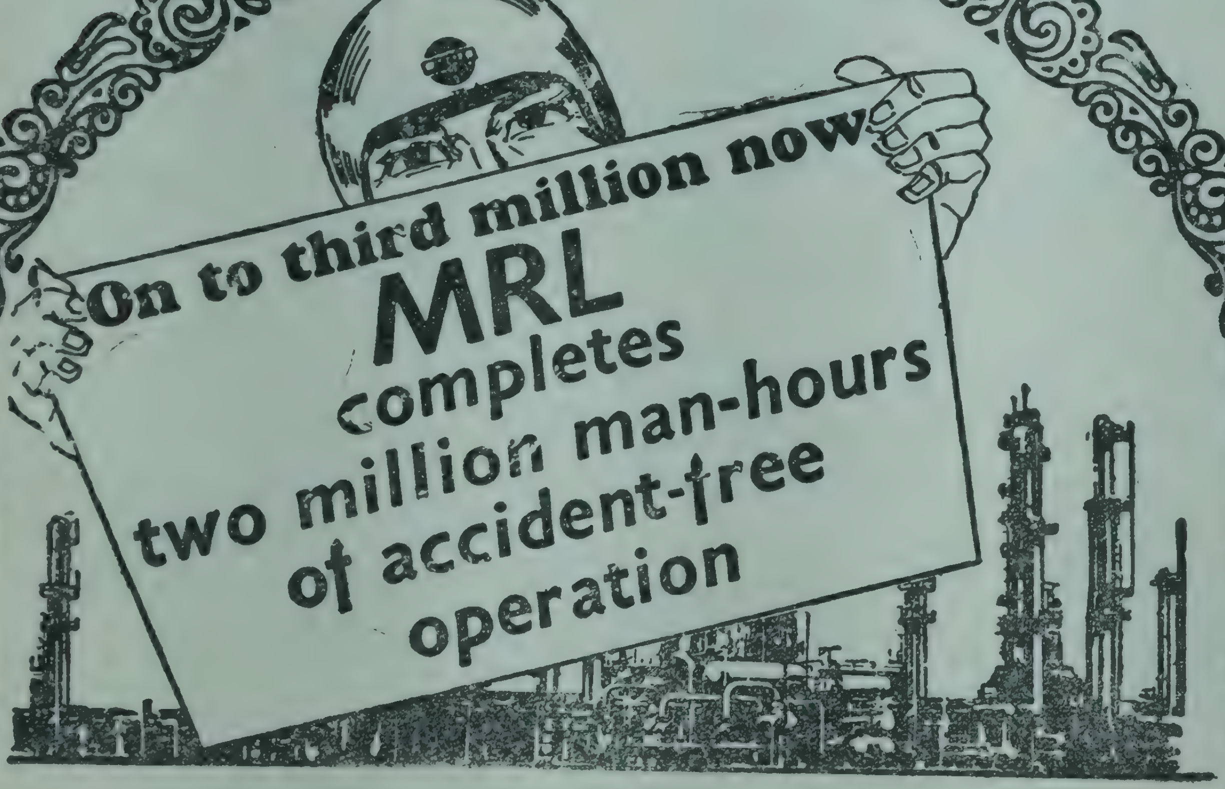

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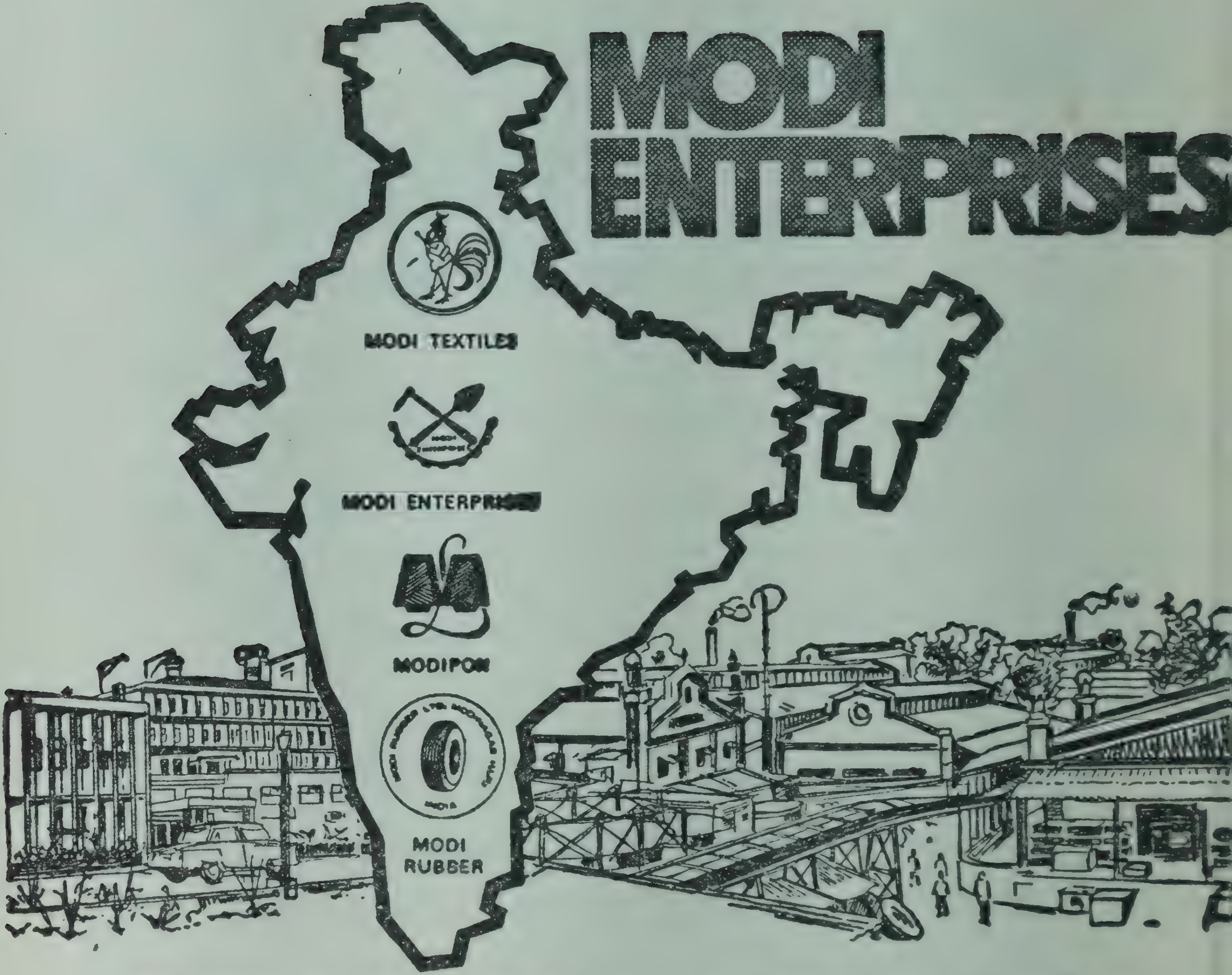

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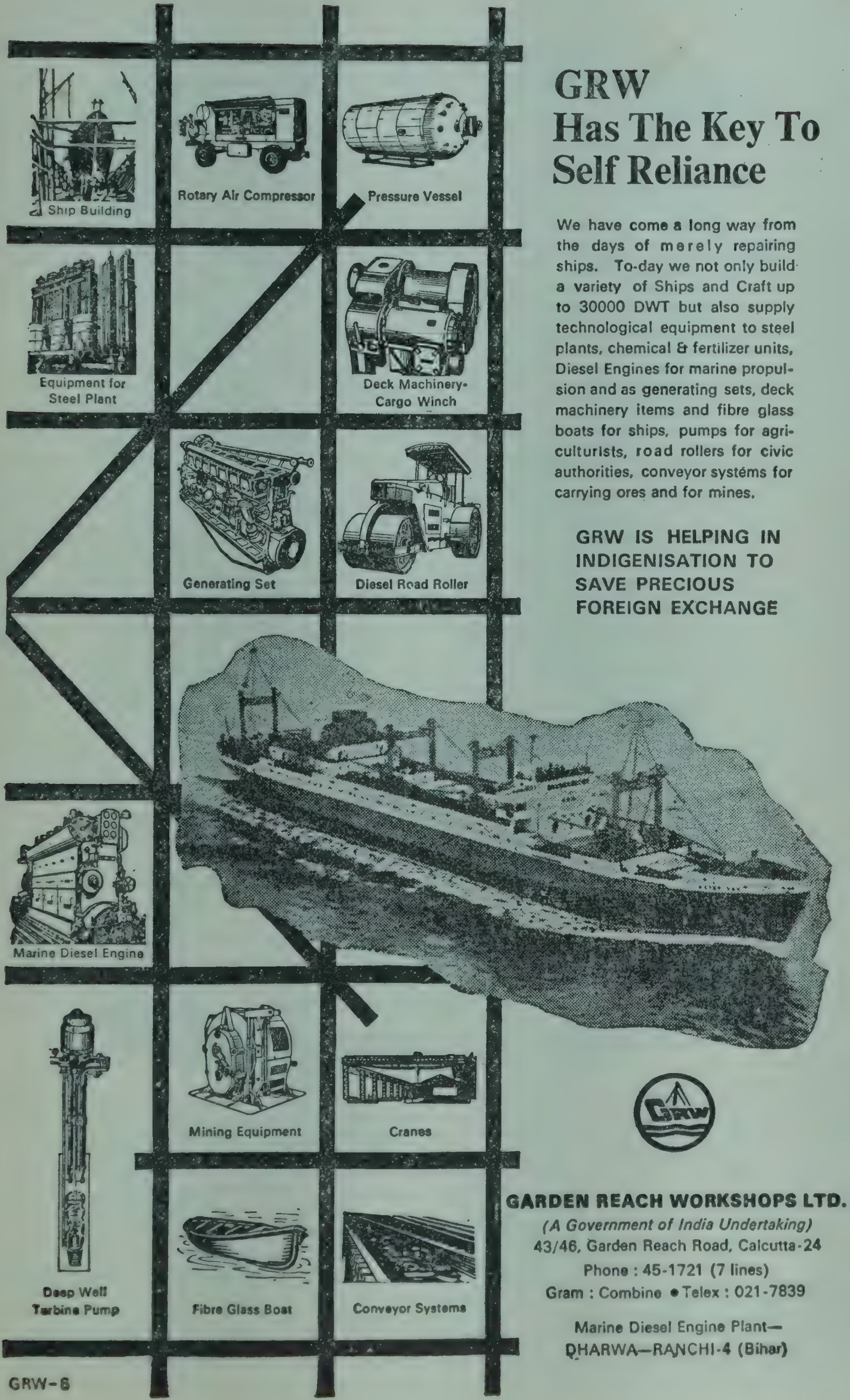

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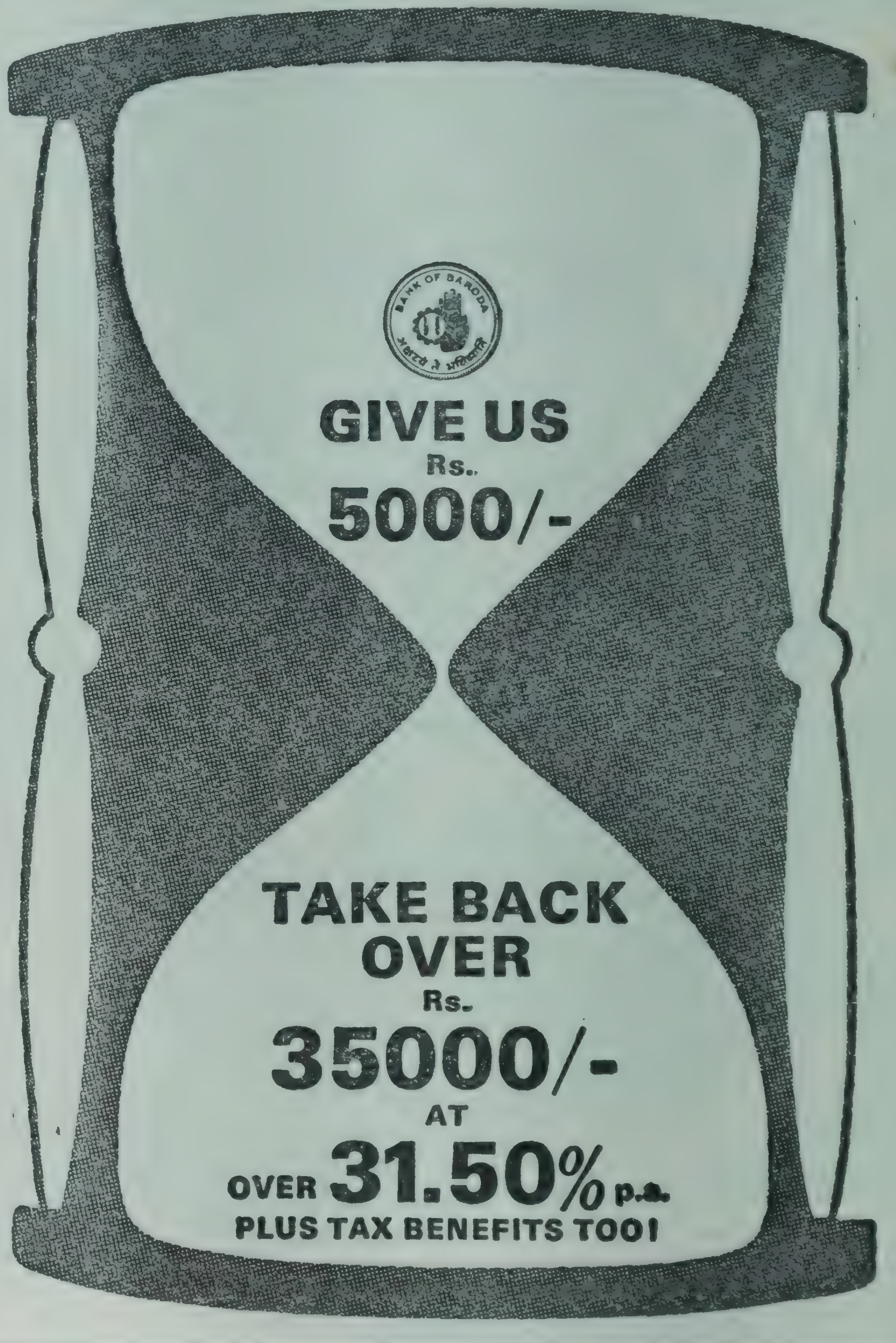

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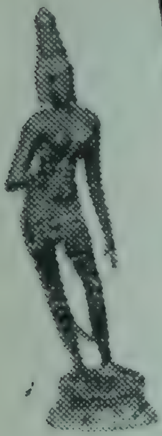

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WELFARE OF WEAKER SECTIONS

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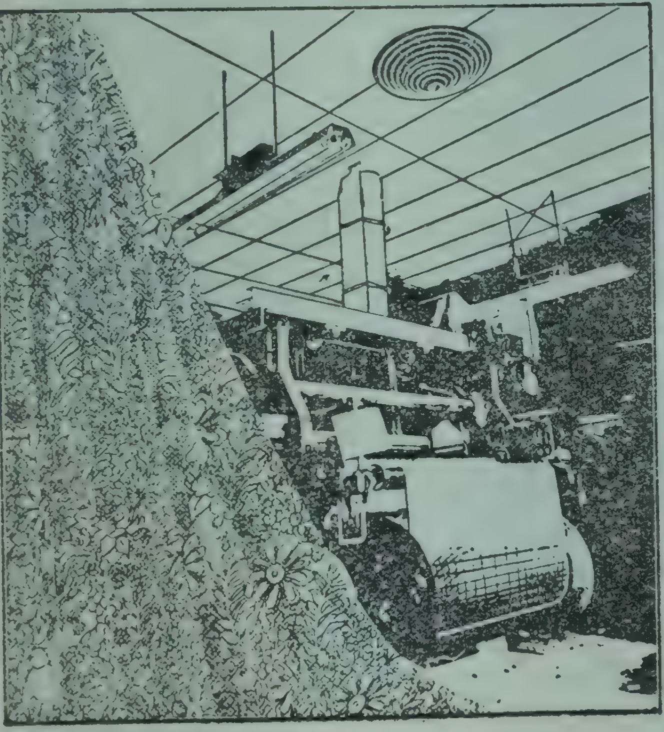

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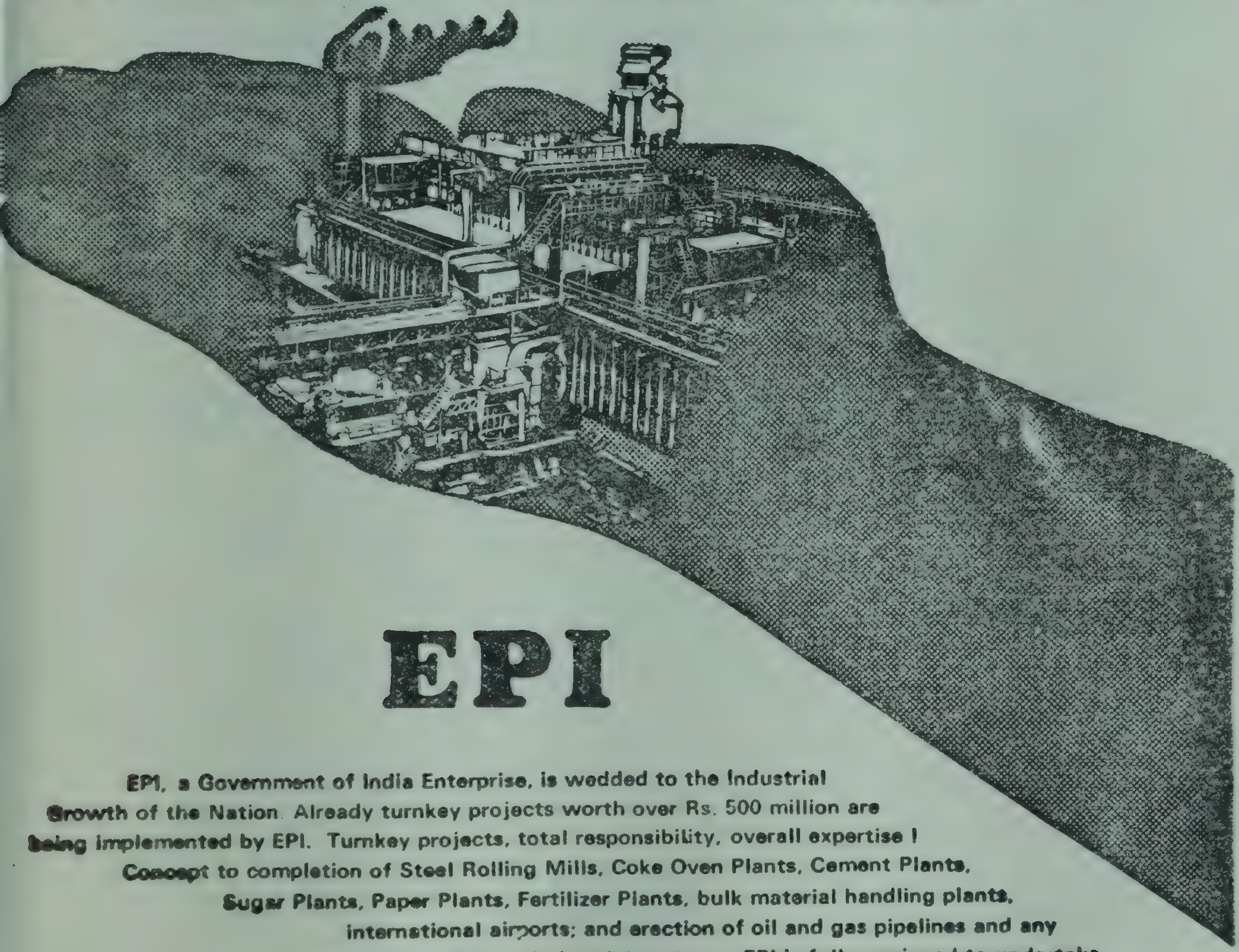

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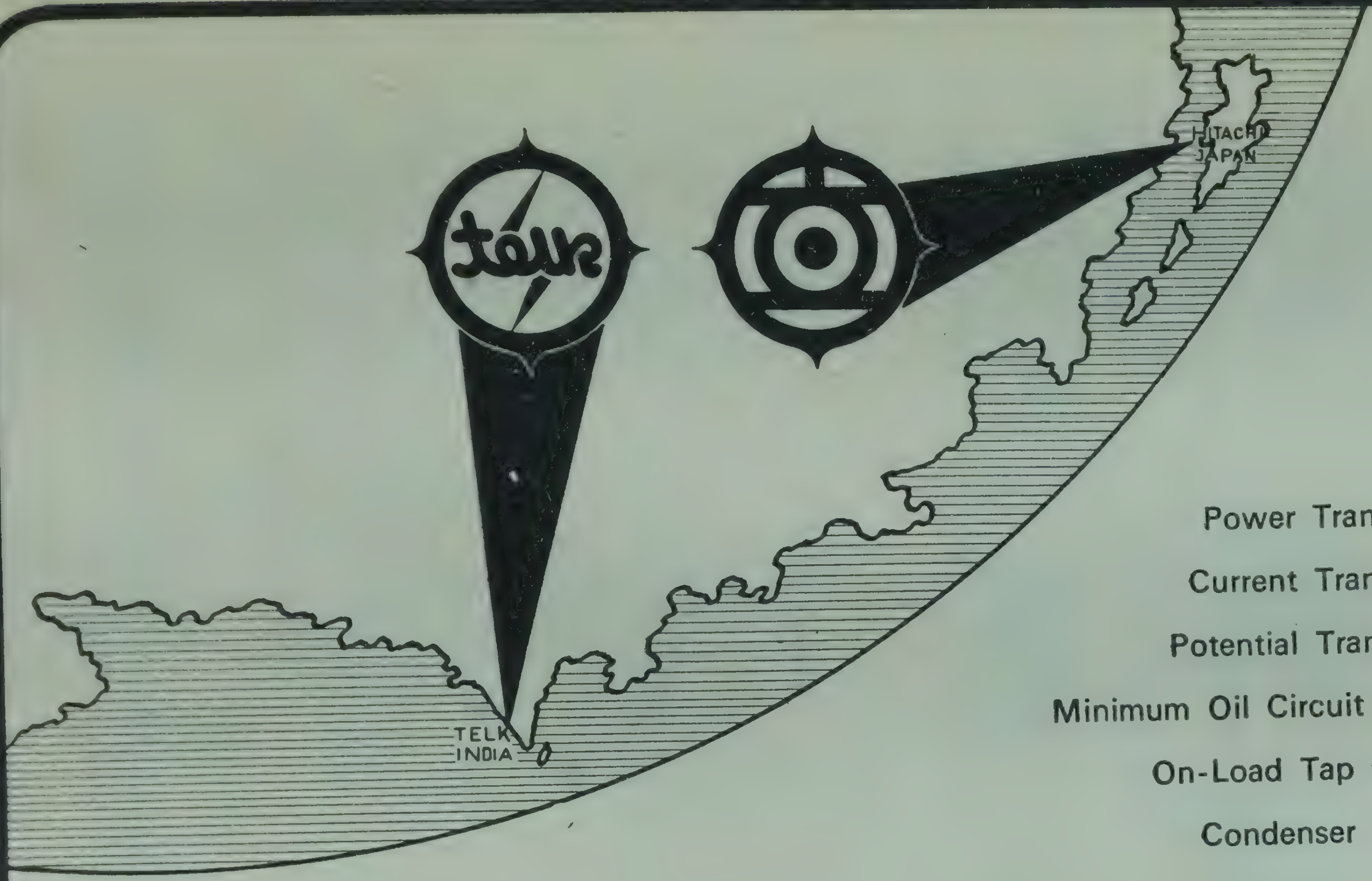

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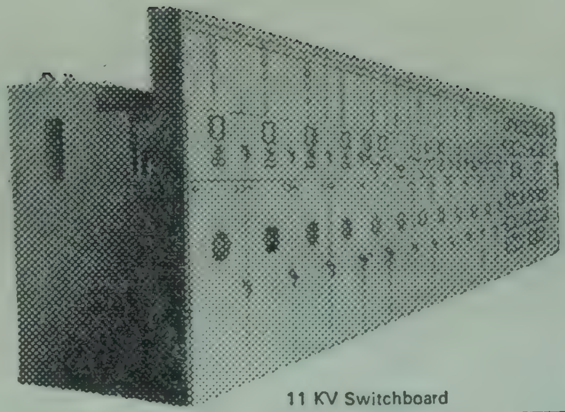
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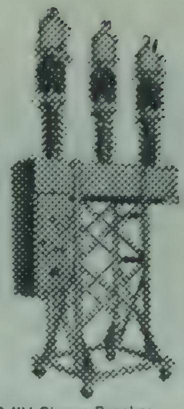
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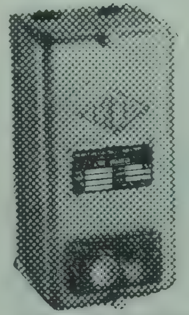
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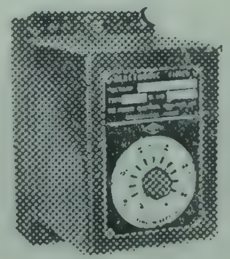
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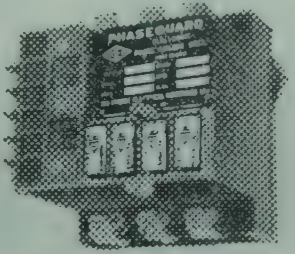
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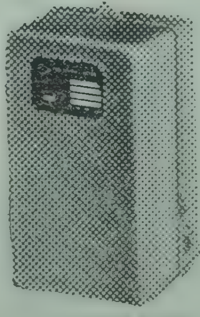
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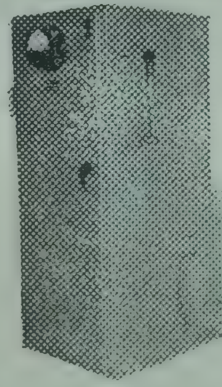
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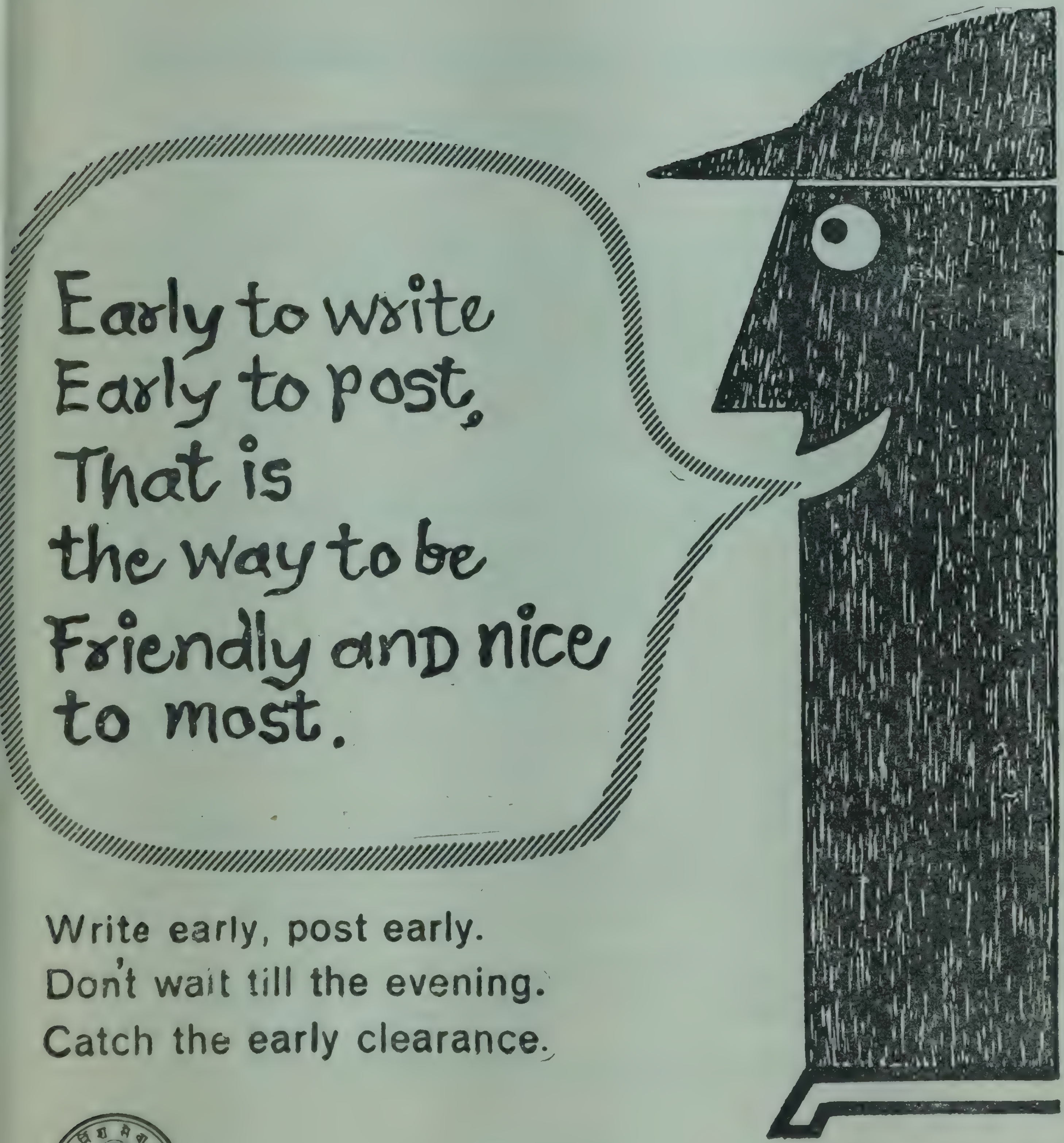

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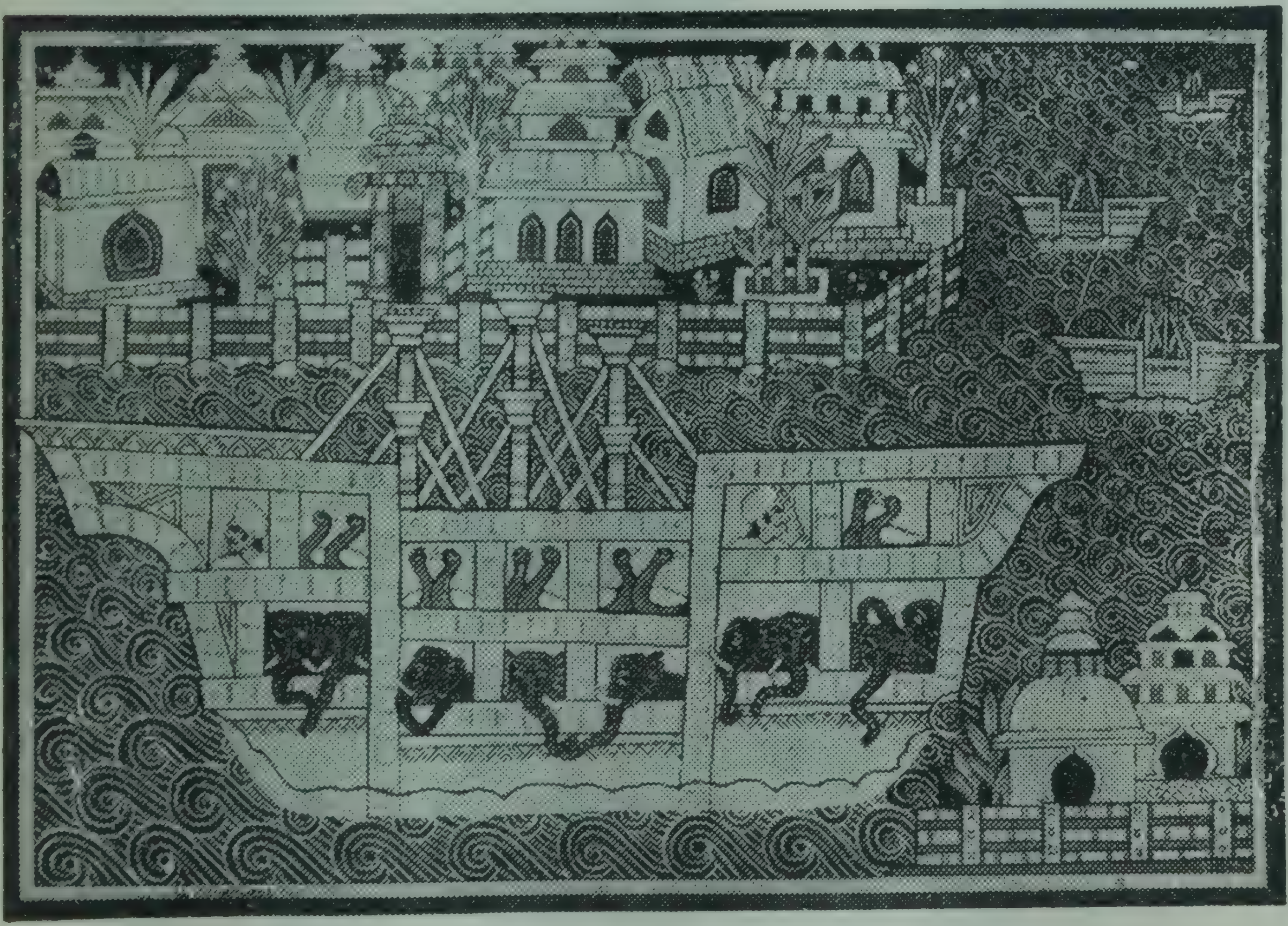

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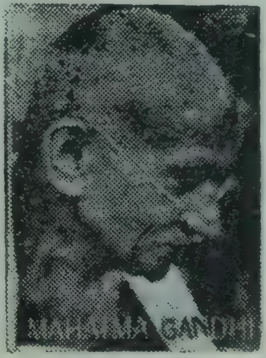

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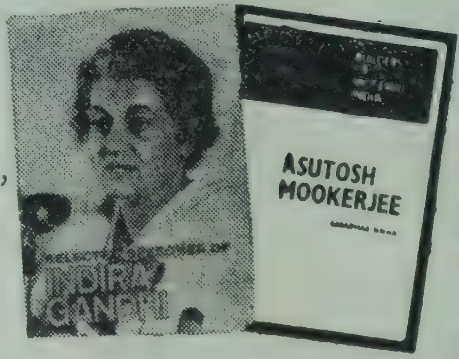

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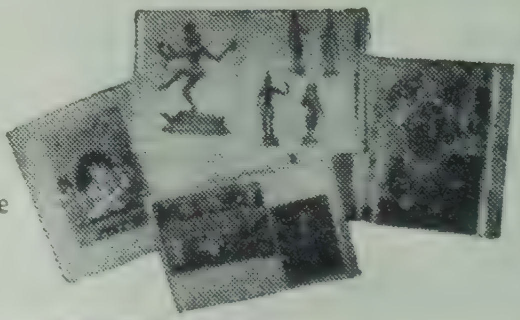

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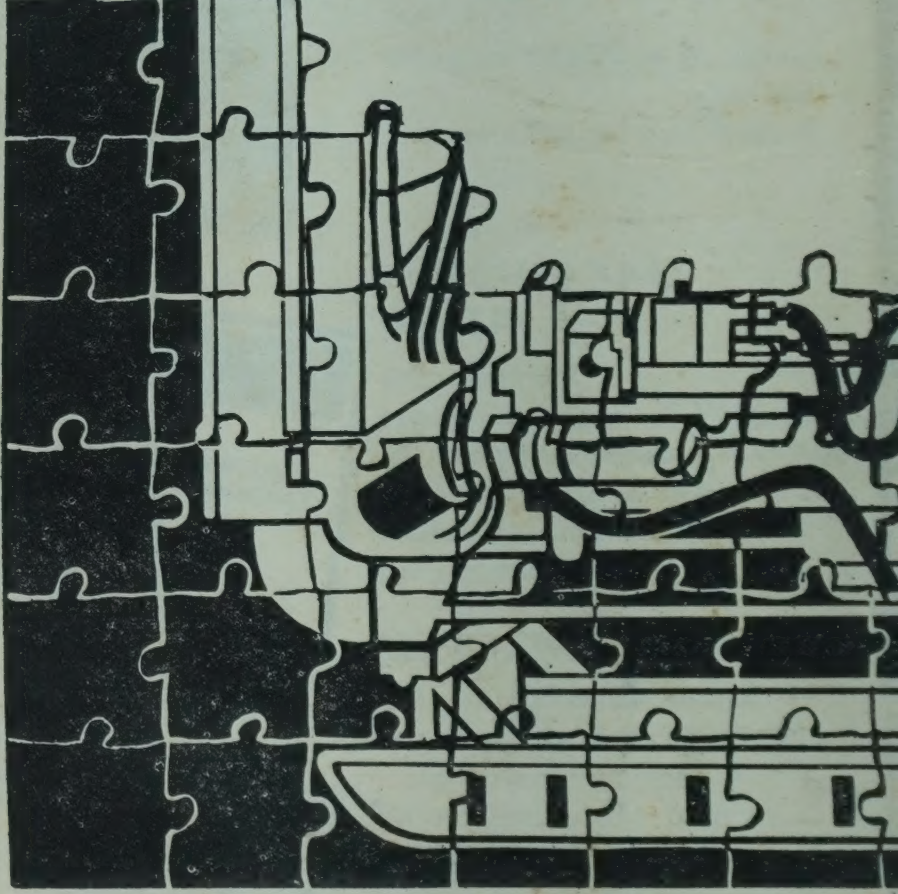

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